



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Cycle 2025

Marking Scheme

Graphics

Common Level

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

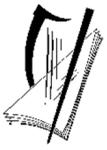
Marking schemes published by the State Examinations Commission are not intended to be standalone documents. They are an essential resource for examiners who receive training in the correct interpretation and application of the scheme. This training involves, among other things, marking samples of student 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

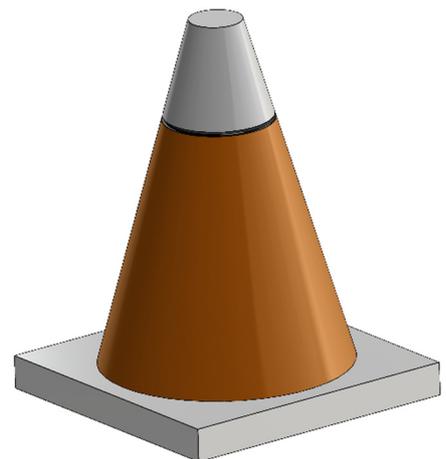
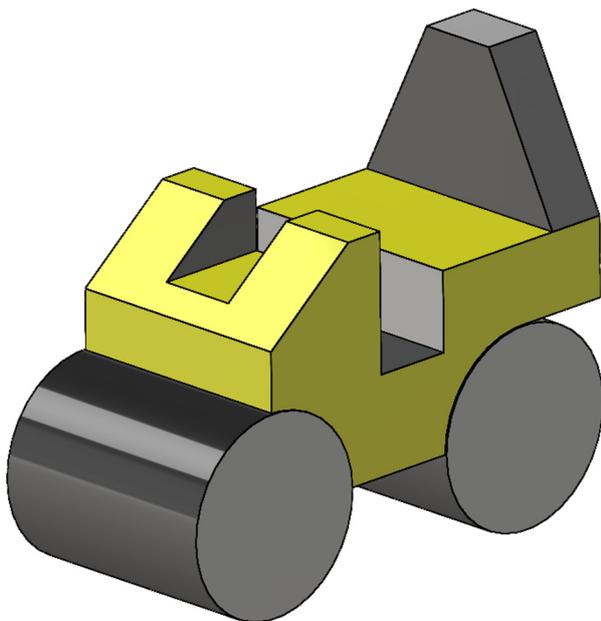
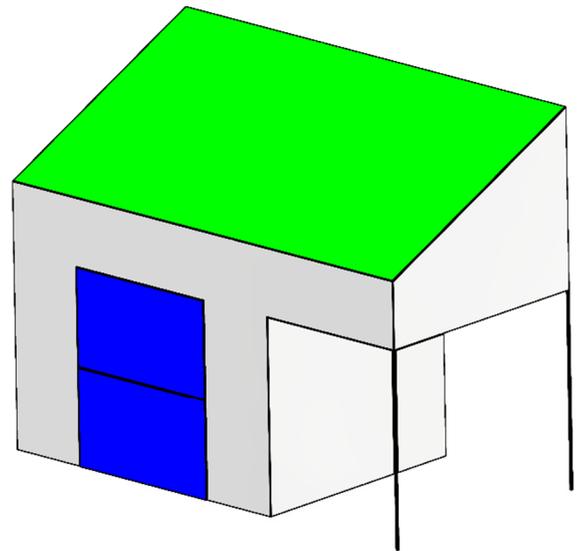
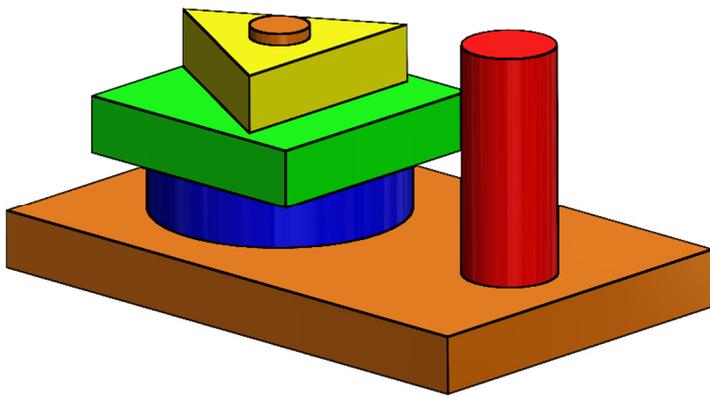
Assumptions about future marking schemes on the basis of past schemes should be avoided. While the underlying assessment principles remain the same, the details of the marking of a particular type of question may change in the context of the contribution of that question to the overall examination in 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.



Junior Cycle Examination 2025

Graphics - Common Level

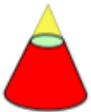
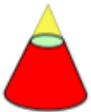
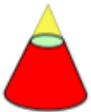
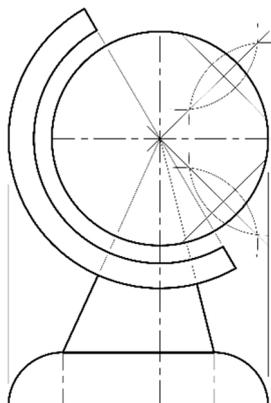
Grafaic - Comhleibhéal



Marking Scheme
Scéim Mharcála

Answer *all* questions

Page 2 – Question 1

Page 2 – Question 1																											
Q1 (a)	<p>(4 x 2 marks)</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p style="background-color: #d3d3d3;">8</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="text-align: center; width: 10%;">A</td> <td style="text-align: center;"></td> <td style="width: 10%;"></td> <td style="text-align: center;">GENERATOR</td> <td style="text-align: center;">E</td> </tr> <tr> <td style="text-align: center;">B</td> <td style="text-align: center;"></td> <td></td> <td style="text-align: center;">PARABOLA</td> <td style="text-align: center;">C</td> </tr> <tr> <td style="text-align: center;">C</td> <td style="text-align: center;"></td> <td></td> <td style="text-align: center;">ELLIPSE</td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">D</td> <td style="text-align: center;"></td> <td></td> <td style="text-align: center;">CIRCLE</td> <td style="text-align: center;">A</td> </tr> <tr> <td style="text-align: center;">E</td> <td style="text-align: center;"></td> <td></td> <td style="text-align: center;">TRIANGLE</td> <td style="text-align: center;">D</td> </tr> </tbody> </table>	A			GENERATOR	E	B			PARABOLA	C	C			ELLIPSE	B	D			CIRCLE	A	E			TRIANGLE	D
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B			PARABOLA	C																							
C			ELLIPSE	B																							
D			CIRCLE	A																							
E			TRIANGLE	D																							
Q1 (b)	<p>(3 x 2 marks)</p> <p>2</p> <p>2</p> <p>2</p> <p style="background-color: #d3d3d3;">6</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;"></th> <th style="text-align: center; width: 10%;">True</th> <th style="text-align: center; width: 10%;">False</th> </tr> </thead> <tbody> <tr> <td>(i) The elevation of a right cone appears as a circle.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>(ii) The plan of a right cone appears as an ellipse.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>(iii) The axis of a right cone is perpendicular to its base.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </tbody> </table>		True	False	(i) The elevation of a right cone appears as a circle.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(ii) The plan of a right cone appears as an ellipse.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(iii) The axis of a right cone is perpendicular to its base.	<input checked="" type="checkbox"/>	<input type="checkbox"/>													
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Q1 (c)	<p>4</p> <p>2</p> <p>4</p> <p>5</p> <p style="background-color: #d3d3d3;">15</p>	<p>Locating centre point</p> <p>Draw arcs (2 x 1 mark)</p> <p>Draw arcs on base (2 x 2 marks)</p> <p>5 lines (5 x 1 mark)</p> <div style="text-align: right;">  </div>																									
Page 2	29																										

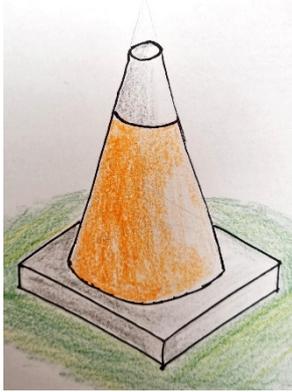
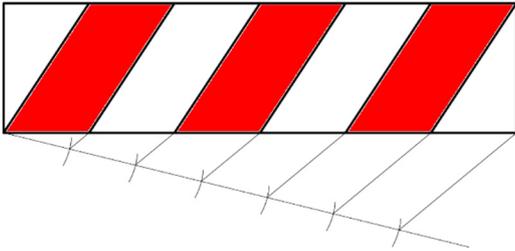
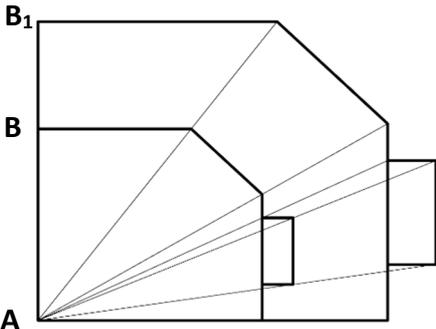
Page 3 – Question 2

Q2 (a)	2	Correct answer = 34
	2	
Q2 (b)	2	Perpendicular projections
	3	Correct heights (3 x 1 mark)
	2	Locating additional points
	3	Completion
	10	

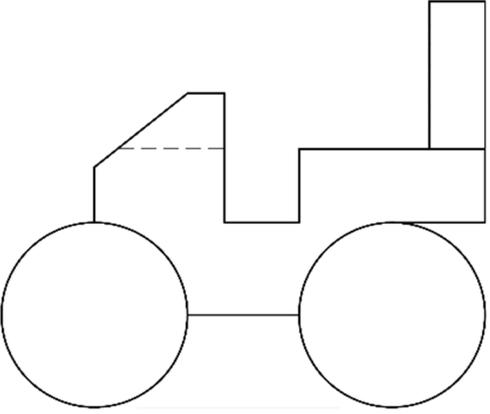
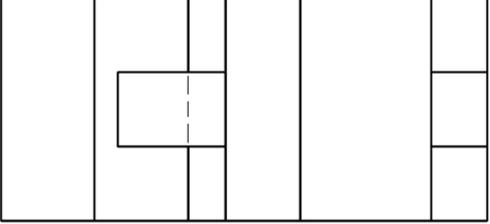
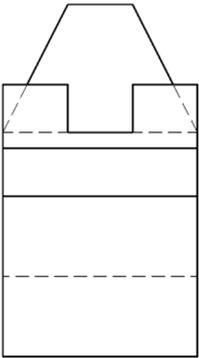
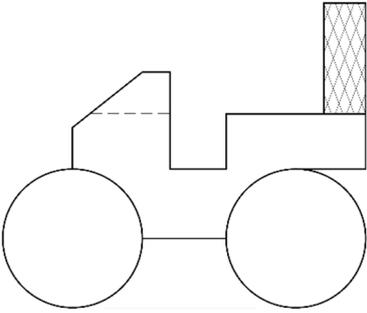
Q2 (c)	8	Vertical lines in elevation (8 x 1 mark)
	4	Horizontal lines in elevation (4 x 1 mark)
	2	Vertical lines in plan (2 x 1 mark)
	3	Horizontal lines in plan (3 x 1 mark)
	1	Hidden detail (1 mark)
	18	

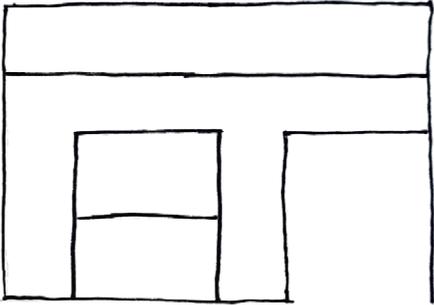
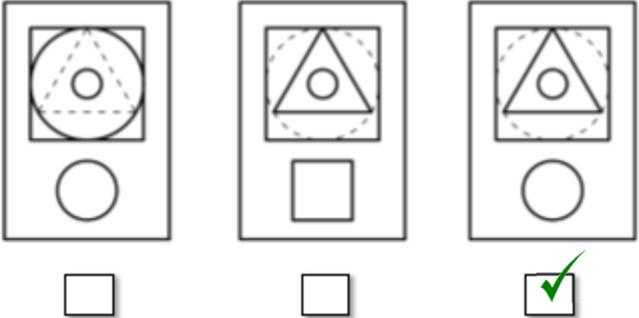
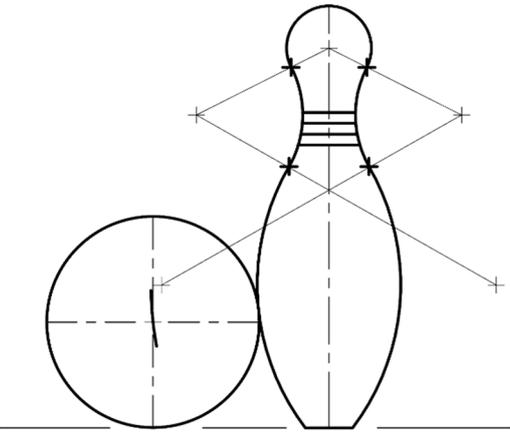
Q2 (d)	2	Correct box
	2	

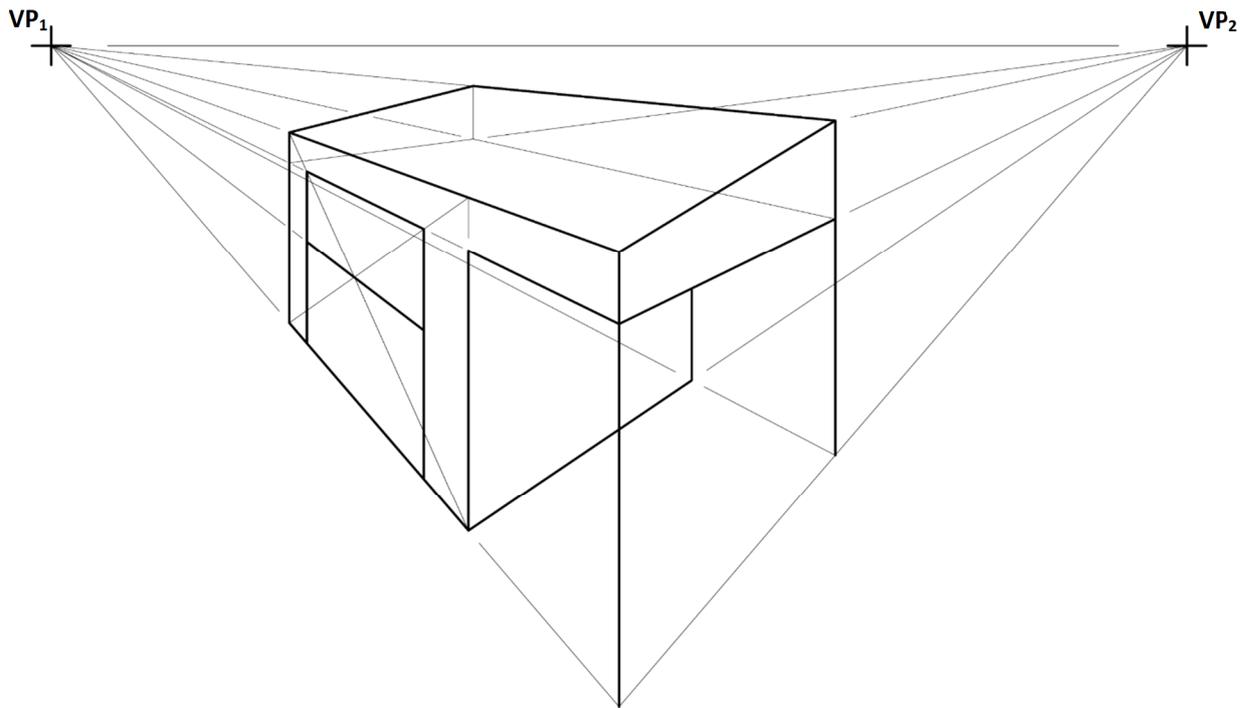
Page 4 – Question 3

Q3 (a)	4	Sketch	
	2	Appropriate render	
	6		
Q3 (b)	3	Division of line	
	6	Lines (6 x 1 mark)	
	2	Appropriate render	
	11		
Q3 (c)	2	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>Octagon Ochtagán</p> </div>	
	2	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>45°</p> </div>	
	4		
Q3 (d)	2	A =	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>25</p> </div>
	2	B =	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>47</p> </div>
	2	C =	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>22</p> </div>
	6		
Q3 (e)	2	Radiating lines	
	6	Completion	
	8		
Page 4	35		

Page 5 – Question 3

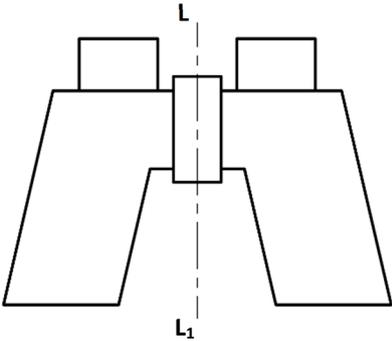
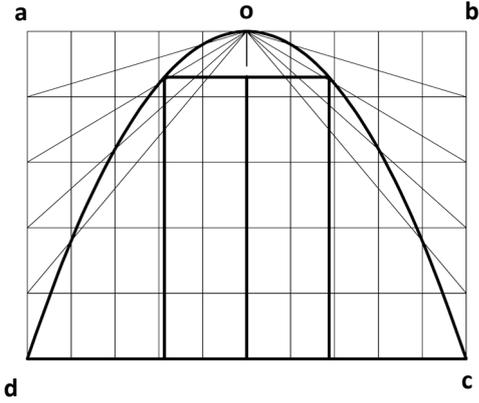
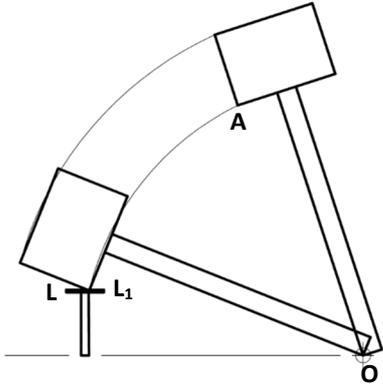
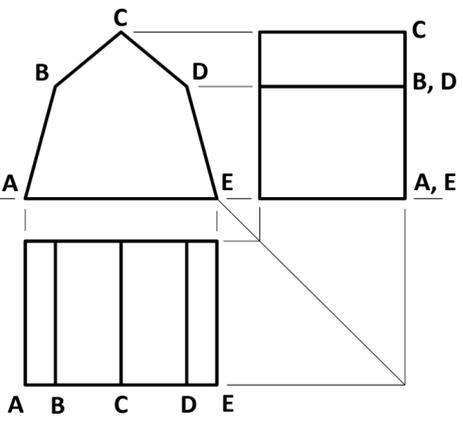
Q3 (f) (i) Elevation (17 marks)		
	5	Vertical lines (5 x 1 mark)
	6	Horizontal lines (6 x 1 mark)
	1	Sloping line (1 mark)
	4	Circles (2 x 2 marks)
	1	Hidden detail (1 mark)
	17	
		
Q3 (f) (ii) Plan (13 marks)		
	8	Vertical lines (8 x 1 mark)
	4	Horizontal lines (4 x 1 mark)
	1	Hidden detail (1 mark)
	13	
		
Q3 (f) (iii) End View (13 marks)		
	3	Vertical lines (3 x 1 mark)
	6	Horizontal lines (6 x 1 mark)
	2	Sloped lines (2 marks)
	2	Hidden detail (2 marks)
	13	
		
Q3 (f) (iv) Identify required surface (3 marks)		
	3	Correct surface
	3	
		
	3	Presentation (3 marks)
Page 5	49	

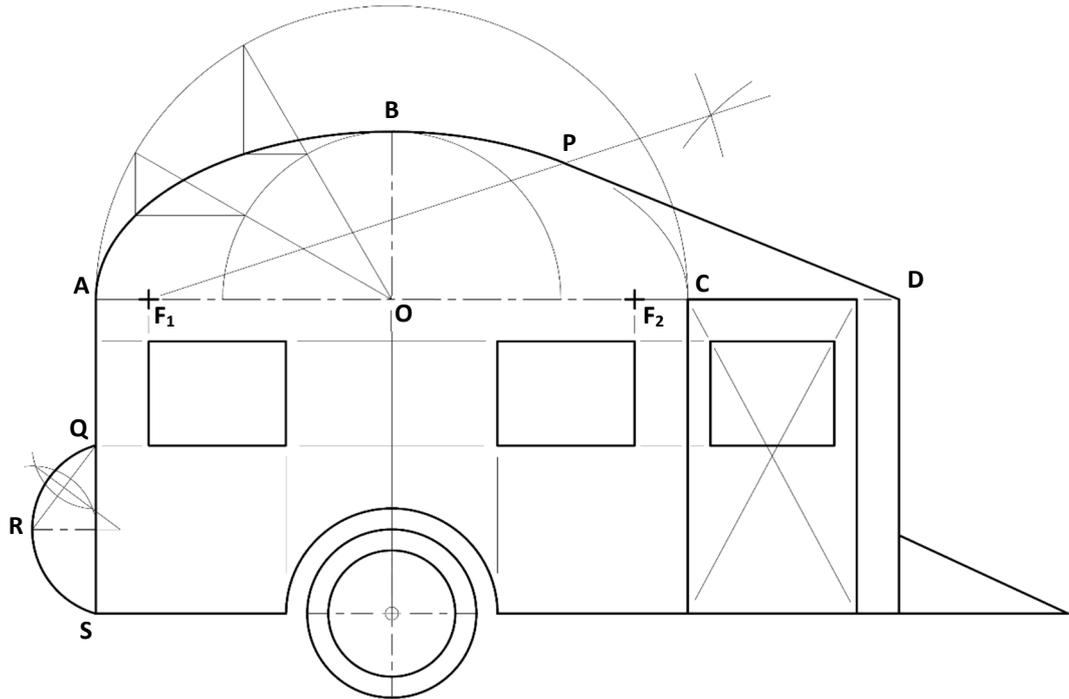
<p>Q4 (a)</p>	<p>6</p>	<p>Sketch</p> 
	<p>6</p>	
<p>Q4 (b)</p>	<p>2</p>	<p>Correct number of blocks = 14 blocks</p>
<p>Q4 (c)</p>	<p>2</p>	
	<p>2</p>	
<p>Q4 (d)</p>	<p>4</p> <p>2</p> <p>2</p>	<p>Points of contact (4 x 1 mark)</p> <p>Location of centre</p> <p>Circle</p> 
	<p>8</p>	
<p>Page 6</p>	<p>18</p>	



Q4 (e)	12	Complete front section (6 x 2 marks)
	12	
	4	Complete side section (2 x 2 marks)
	4	
	6	Complete top section (3 x 2 marks)
	6	
	3	Presentation
Page 7	25	

Page 8 – Question 5

<p>Q5 (a)</p>	<p>2 2 5 9</p>	<p>Correct focus Correct lens Complete barrel</p>	
<p>Q5 (b)</p>	<p>6 3 4 13</p>	<p>Parabola construction (1,1,2,2) Draw curve Draw door</p>	
<p>Q5 (c)</p>	<p>2 2 7 11</p>	<p>Rotating points about O Location of points Completion (7 x 1 mark)</p>	
<p>Q5 (d)</p>	<p>4 5 9</p>	<p>Completion of end view (4 x 1 mark) Correct indexing (5 x 1 mark)</p>	
<p>Page 8</p>	<p>42</p>		



Q5 (e) (i)	Ellipse (16)	
	6	Draw minor circle (2 marks) , establish length of major axis and draw major circle (4 marks)
	6	Locating additional points on the curve (2, 2, 2)
	4	Draw curve
	16	
Q5 (e) (ii)	Completion (31)	
	6	Outline: Verticals (2 marks) , horizontals (2 marks) , sloped line (2 marks)
	4	Arc QRS : centre (3 marks) , arc (1 mark)
	5	Wheel: circles (3 marks) , wheel arch (2 marks) ,
	4	Windows: (2 x 2 marks)
	5	Door outline (2 marks) , door window (3 marks)
	7	Tangent construction (5 marks) , tangent line (2 marks)
	31	
	3	Presentation (3 marks)
Page 9	50	
Total 280		

Examiner Notes

Student Project marking scheme

Sheet 1					
2D & 3D Freehand sketches and annotations			Awareness of geometry		Presentation
20			12		8
Fair	Good	Excellent	Fair	Good	Excellent
0 – 7	8 – 14	15 – 20	0 – 4	5 – 8	9 – 12

Notes					

Sheet 2

Appropriately detailed 2D orthographic drawing			Main dimensions & appropriate 2D conventions			Presentation
20			12			8
Fair	Good	Excellent	Fair	Good	Excellent	
0 – 7	8 – 14	15 – 20	0 – 4	5 – 8	9 – 12	

Notes