



2009 Graphic Communication

Higher

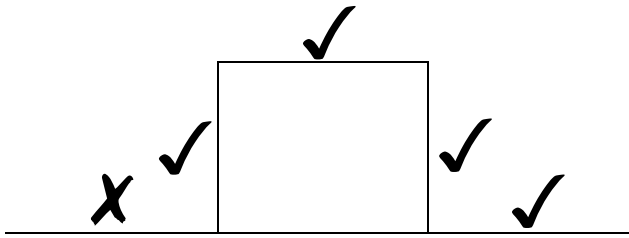
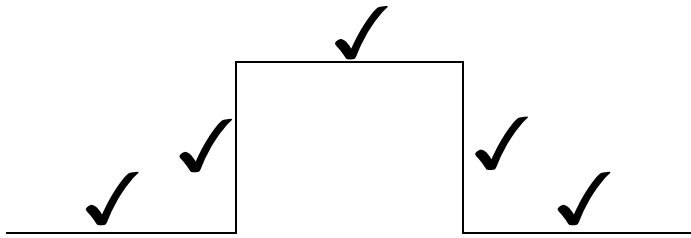
Finalised Marking Instructions

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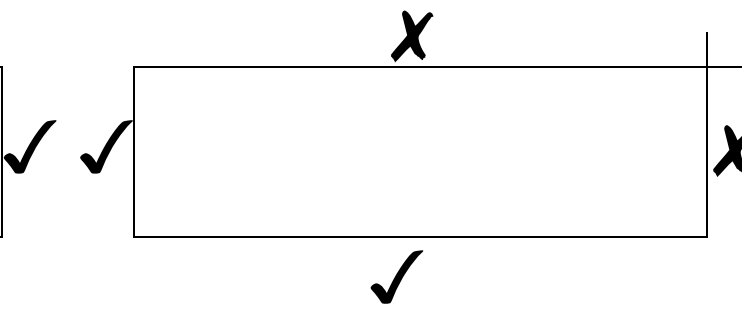
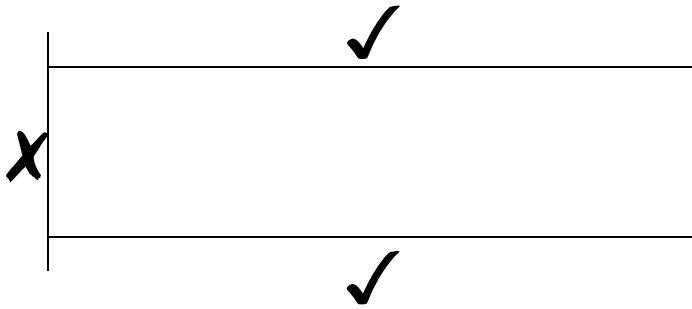
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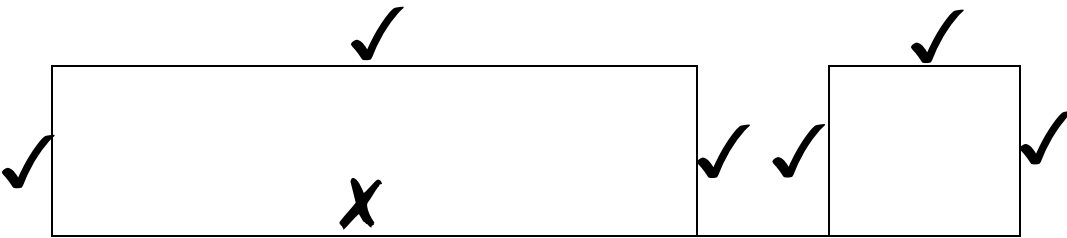


Penalty when a line is continued across a base



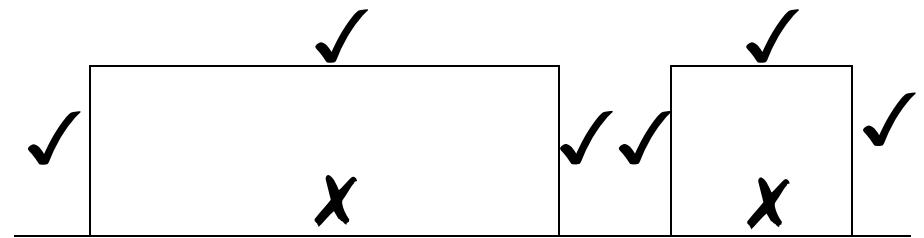
Penalty when a line is extended/continued incorrectly

Penalty when a line is incorrectly projected to another view



Elevation

End Elevation



Elevation

End Elevation

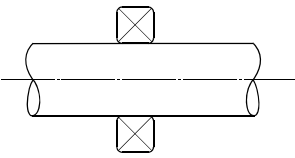
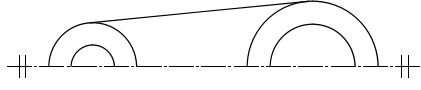
Higher Level Graphic Communication 2009

Question 1

			Marks
<i>Preliminary</i>	Purpose	To convey ideas to clients etc quickly and clearly, to assist in the analysing and planning of the design process or similar.	1
	Example	Sketches, dimensional, orthographic or investigative, planning charts, graphs, thumbnails, market research or similar.	1
<i>Production</i>	Purpose	To allow objects to be manufactured accurately, to provide accurate information.	1
	Example	Orthographic, isometric, oblique, sectional, exploded, assembly, block, site, floor and gantt chart, or similar	1
<i>Promotional</i>	Purpose	Brings peoples attention to or highlights a product or special feature of a product, to inform public about product, to sell, to advertise, or similar.	1
	Example	Advert, display, charts, graphs, model, brochures, presentations, planometric or perspective sketches.	1
Total marks			6

Notes:

Question 2

			Marks
(a)	Type of section	Removed Section	1
	Type of section	Revolved Section	1
	Type of section	A Half Sectional View	1
(b)	(i)		<p>2 squares for 1 mark (fillets not required) 1</p> <p>Diagonals for 1 mark (only one set required) 1</p>
	(ii)		<p>Centre line and 2 pairs of parallel lines required for 1 mark. 1</p>
(c)	Type of view at A	Enlarged (scale) Partial View, 1 mark for <i>Enlarged</i> 1 mark for <i>Partial View</i>	2
(d)	Component B	Key, for 1 mark	1
Total marks			9

Notes:

Question 3

		Marks
(a)	block plan: 1:1250 or 1:2500	1
	site plan: 1:250 or 1:200 or 1:500	1
(b)	block plan features; Road, street or road name (accept actual name), paths, neighbouring buildings, plot number, field, outline of building, contours. Any 3 for 1 mark each	3
	site plan features; Road, paths, trees or shrubs (but not both), outline of building, roof line, drainage, inspection hatches (accept manholes), location of building (accept dimensions), north point. Any 3 for 1 mark each.	3
Notes: ensure that features are mentioned only once for full marks.		
Total marks		8

Notes:

Question 4

		Marks
Stage 2	Thumbnails	1
Method	Sketches/sketching	1
Purpose	Developing, recording, comparing ideas or page layouts 1 mark for any of the above	1
Stage 3	Working Rough (accept visuals)	1
Method	Drawn, fully sized image	1
Purpose	To establish the position and sizes of the component parts of a document, eg margins, gutters, graphics etc. To enable electronic version of the document to be produced. 1 mark for any of above or similar answer	1
Total marks		6

Notes:

Do not accept answer that implies that the Rough is prepared for the client.

Question 5

		Marks
(a)	Advantages Laser Faster, sharper graphics, greater buffer memory, more cost effective for large print runs, quieter. Any 2 answers, 1 mark each	2
(b)	Advantages Inkjet Cheaper to buy; low cost cartridges. Any answer, 1 mark	1
Total marks		3

Notes:

Question 6

		Marks
(a)	(i) Headline	1
	(ii) Margin	1
	(iii) Graphic/Image	1
	(iv) Caption	1
	(v) Footer	1
(b)	Effect at X: Reverse (white on black)	1
		Total marks 6

Notes:

Question 7

		Marks
Autotracing	Creating an outline around a graphic to allow a fill or other computer effect to be applied to this area.	
	Similar answer for 1 mark.	1
Colour gradient	The gradual blending of one colour into another colour.	
	Answer must contain some explanation of 'blending'.	1
		Total marks 2

Notes:

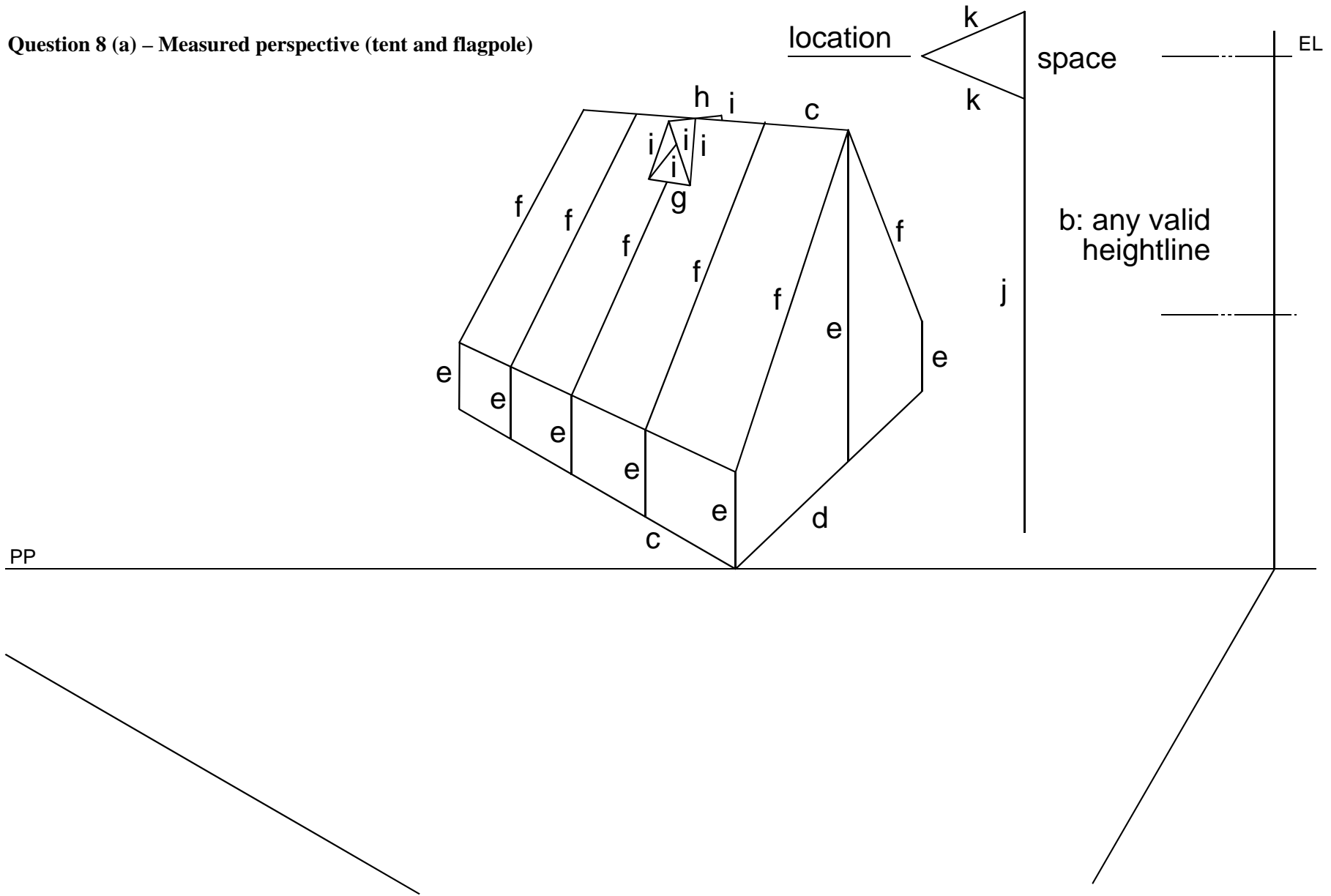
Question 8 (a) – Perspective (tent and flagpole)

	Marks
<u>Tent</u>	
(a) Vanishing points – project from SP, stop at PP, locate on EL	1
(b) Any height line correctly constructed	1
(c) Lines to VP left (3 for 1)	1
(d) Lines to VP right (1 for 1)	1
(e) Lines vertical 7 lines (3 for 1; 6 for 2; 7 for 3)	3
(f) Lines sloping 6 lines (3 for 1; 6 for 2)	2
<u>Ventilator</u>	
(g) Lines to VP left (1 for 1)	1
(h) Lines to VP right* (1 for 1)	1
(i) Lines sloping 5 lines (3 for 1; 5 for 2)	2
<u>Flagpole</u>	
(j) Lines vertical – location and height for 1	1
(k) Lines sloping – location and space apart at pole for 1	1
Total marks	15

Notes:

* (h) If line terminates on ridge, grant the mark (there will be an inevitable penalty at (i)).

Question 8 (a) – Measured perspective (tent and flagpole)

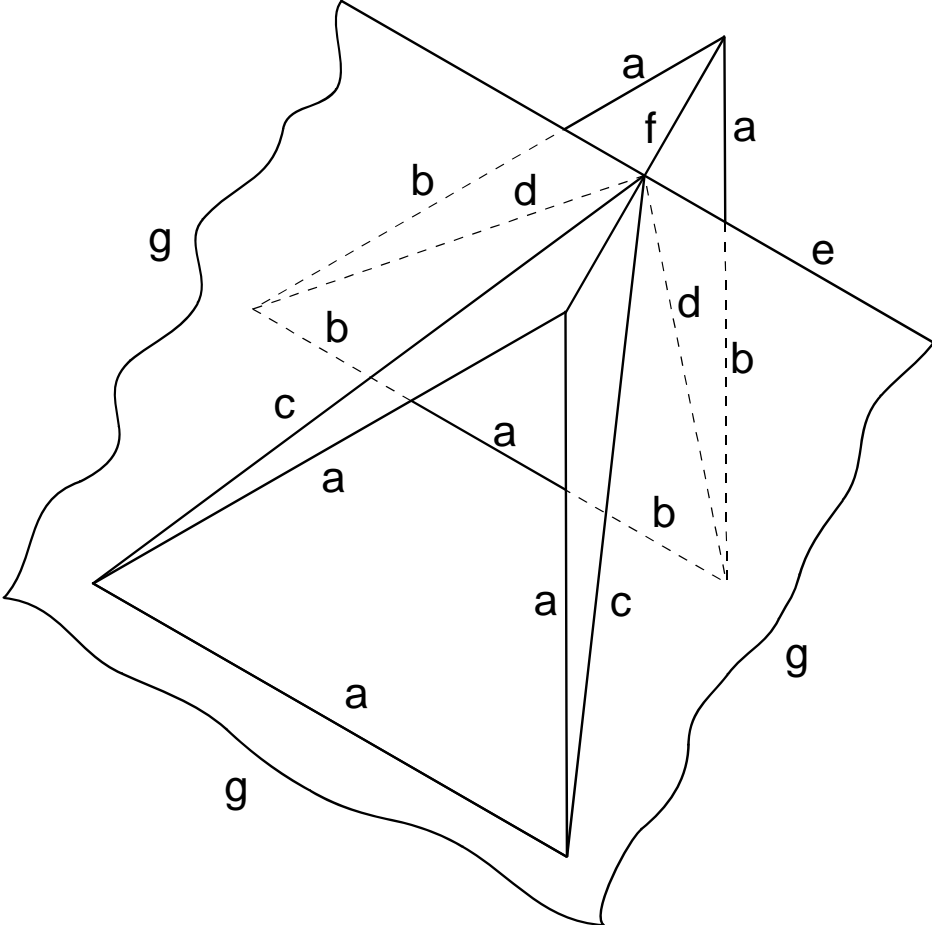


Question 8 (b) – Auxiliary view (tent ventilator)

	Marks
(a) Lines (firm) (2 for 1; 4 for 2; 6 for 3)	3
(b) Lines (broken) (2 for 1; 4 for 2)	2
(c) Lines (firm) (2 for 1)	1
(d) Lines (broken) (2 for 1)	1
(e) Line (firm) (1 for 1)	1
(f) Line (firm) (1 for 1)	1
(g) Lines (freeform) (3 for 1)	1
Total marks	10

Notes:

Question 8 (b) – Auxiliary view (tent ventilator)



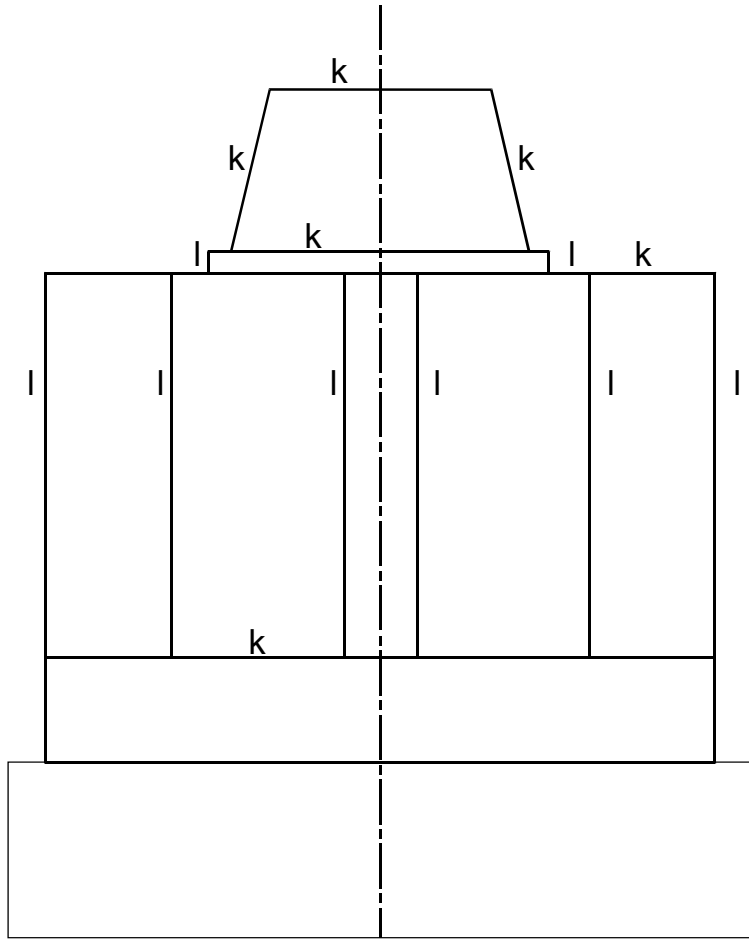
Question 9 – Tool post

	Marks
Stepped Section	
Base and Cap	
(a) Lines, horizontal 11, (2 for 1, 4 for 2, 6 for 3, 8 for 4, 11 for 5).	5
(b) Lines, vertical 10, (2 for 1, 4 for 2, 6 for 3, 8 for 4, 10 for 5).	5
(c) Lines, sloping (3 for 1)	1
(d) Thread detail (4 lines for 1)	1
Bolt	
(e) Lines, horizontal 4, (2 for 1, 4 for 2)	2
(f) Lines, vertical (3 for 1)	1
(g) Thread detail (2 lines for 1)	1
Hatching	
(h) 45° and opposing direction for 1 mark (at least 2 parts)	1
(i) All areas for 1 mark	1
(j) BS convention for threads and web	1
End Elevation	
(k) Lines, horizontal and sloping 6, (2 for 1, 4 for 2, 6 for 3)	3
(l) Lines, vertical 8, (2 for 1, 5 for 2, 8 for 3)	3
Total marks	25

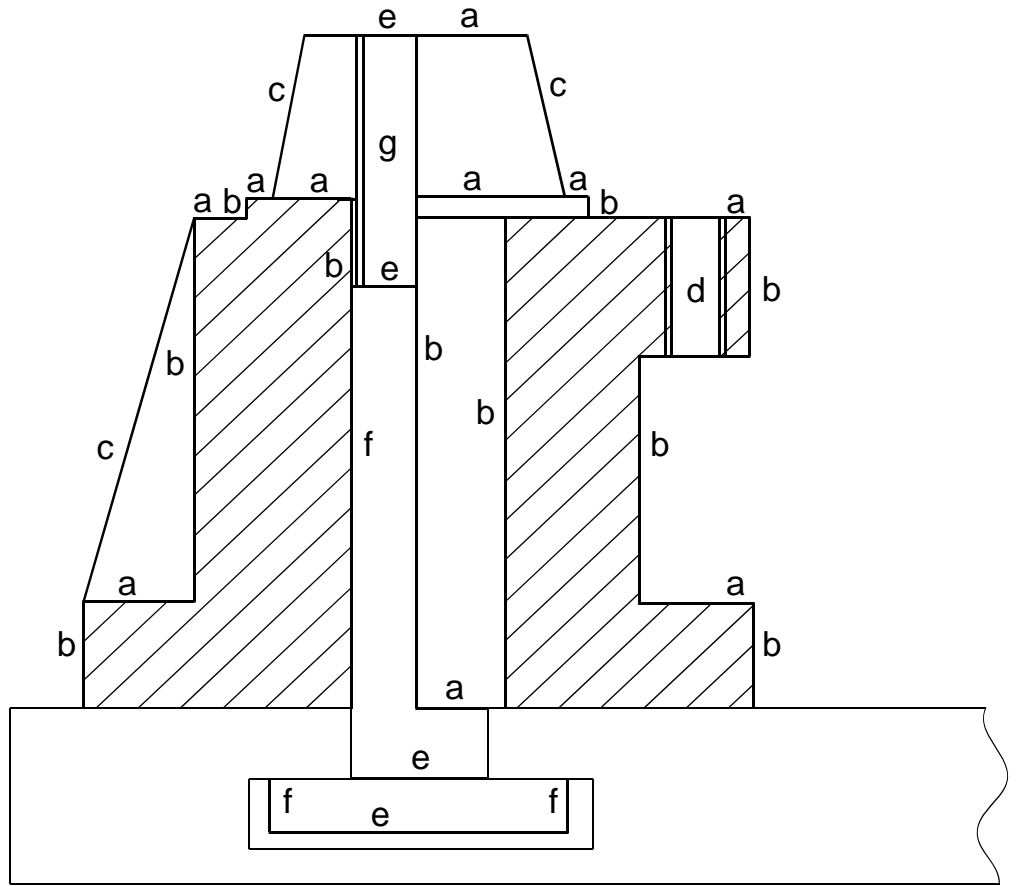
Notes:

Question 9 – Toolpost – Stepped section and assembled end elevation

Q9



END ELEVATION



SECTIONAL ELEVATION CN A-A

Question 10 – Tangency Toy

Marks

Ellipse

- (a) 4 critical points for 1 mark, min 8 intermediate points for 1 mark,
fair curve for 1 mark **3**

Tangency – working anti-clockwise from the top

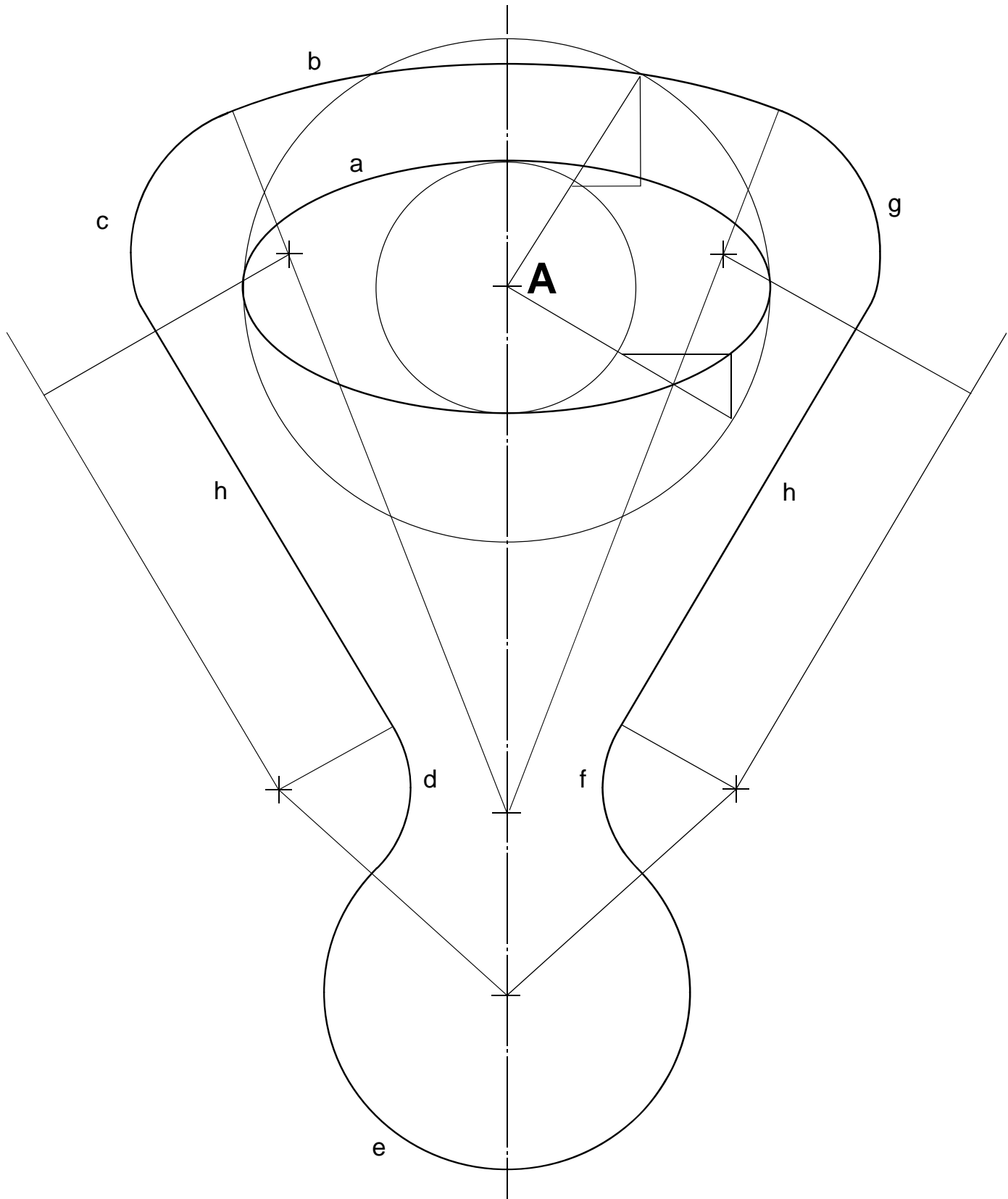
- (b) Arc R150, centre, arc & tangent for 1 mark **1**
- (c) Arc R30, centre, arc & tangent for 1 mark **1**
- (d) Arc R25, centre, arc & tangent for 1 mark **1**
- (e) Arc R35, centre, arc & tangent for 1 mark **1**
- (f) Arc R25, centre, arc & tangent for 1 mark **1**
- (g) Arc R30, centre, arc & tangent for 1 mark **1**
- (h) 2 tangent lines for 1 mark **1**

Total marks 10

Notes:

Clear construction of centres required for mark (two intersecting lines, two arcs or one line and arc).
Clear part circle with correct radius drawn for mark.
Smooth links with no firm tails for mark.

Q10



Question 11 – Interpenetration & Development (racing car shell)

Marks

Elevation

- | | | |
|-----|--|----------|
| (a) | Curve: valid construction for 1
start, mid and finish for 1
intermediate points (2 for 1*) | 3 |
| (b) | Fair curve | 1 |
| (c) | Lines (2 for 1) | 1 |

Plan

- | | | |
|-----|--|----------|
| (d) | Curve: valid construction for 1
start, mid and finish for 1
intermediate points (2 for 1*) | 3 |
| (e) | Fair curve | 1 |

Development

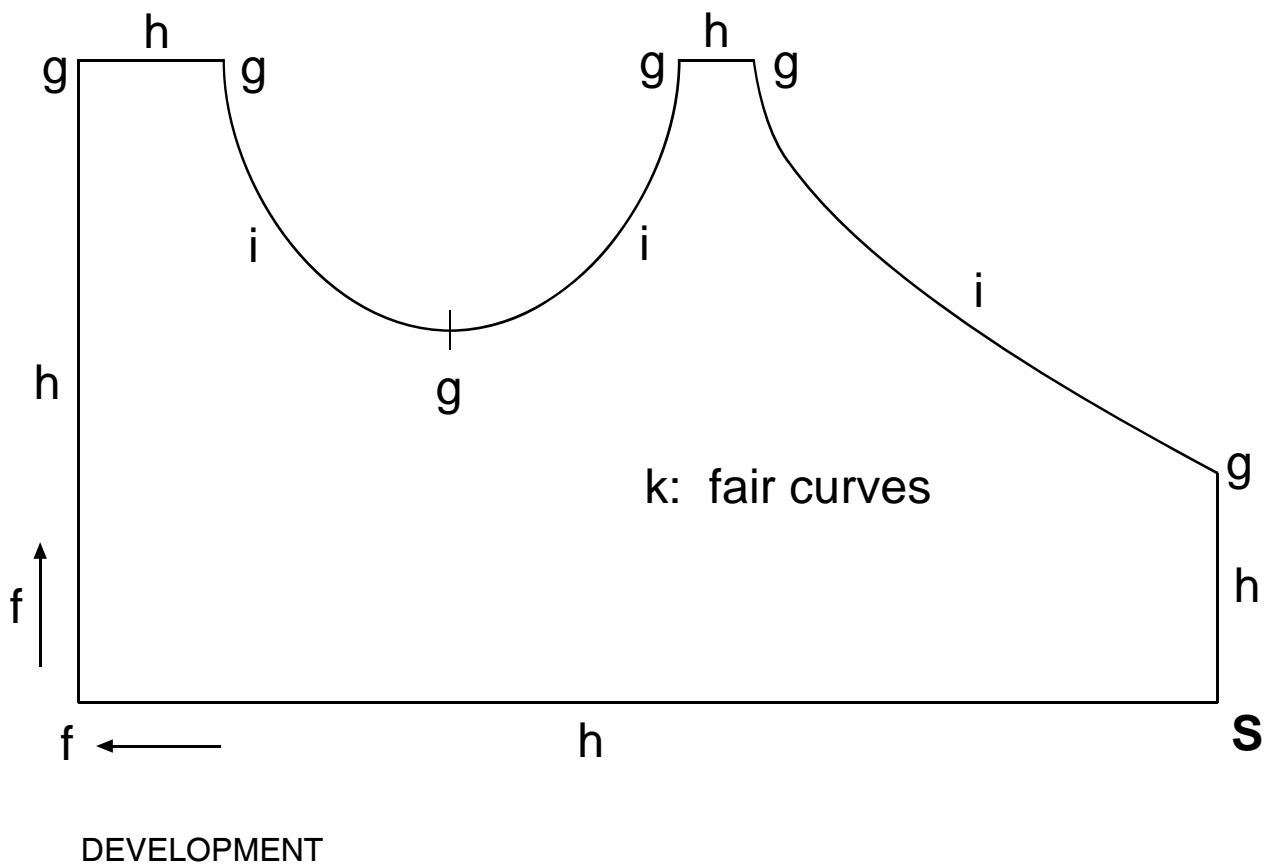
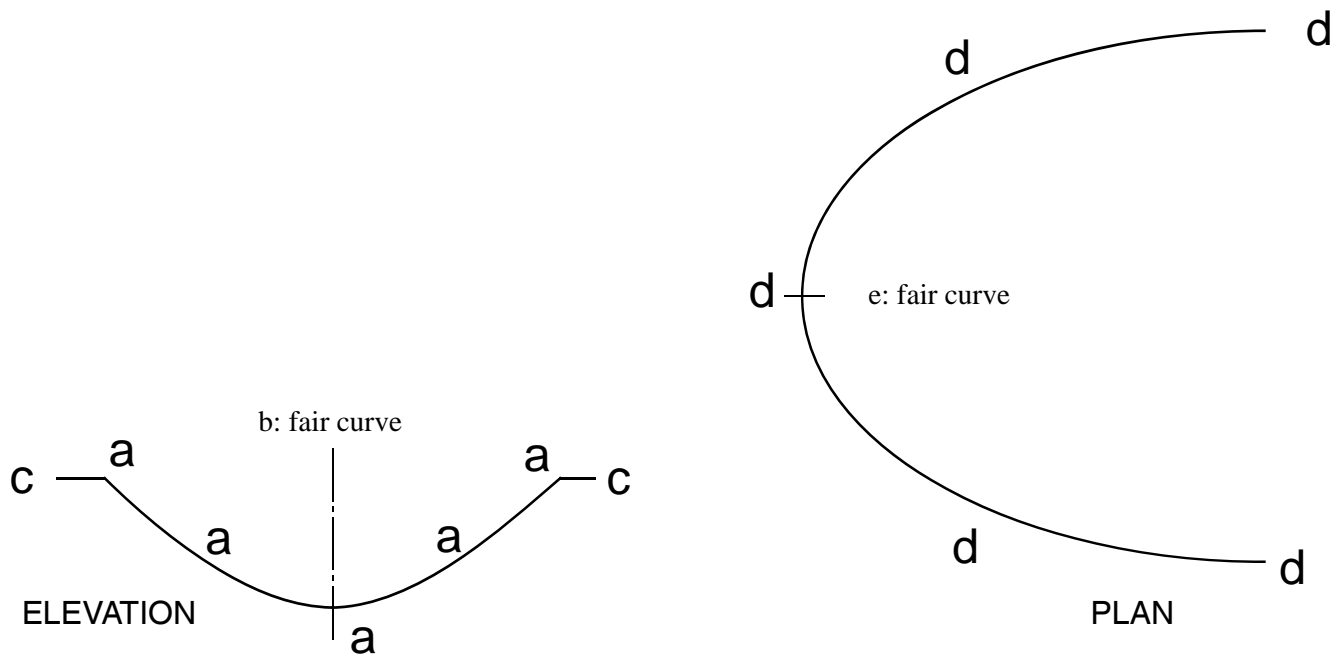
- | | | |
|-----|--|----------|
| (f) | Lengths (2) (1 mark each) ± 2 | 2 |
| (g) | Critical locations (5) (2 for 1; 4 for 2; 5 for 3) | 3 |
| (h) | Lines (3 for 1; 5 for 2) | 2 |
| (i) | Intermediate points (2 for 1*) | 1 |
| (j) | Intermediate points (2 for 1*) | 1 |
| (k) | Fair curves (2) (1 mark each) | 2 |

Total marks 20

Notes:

* minimum: candidates opting for 2 points (1 pair) require particular attention to fair curve (route)

Question 11 – Interpenetration & Development (racing car shell)



Question 12 – Isometric (mirror assembly)**Marks****Plan**

- | | | |
|-----|---|---|
| (a) | Curve: valid construction or ellipse template for 1 | 1 |
| (b) | Fair curve | 1 |
| (c) | Lines (broken) (2 for 1) | 1 |

Isometric (body)

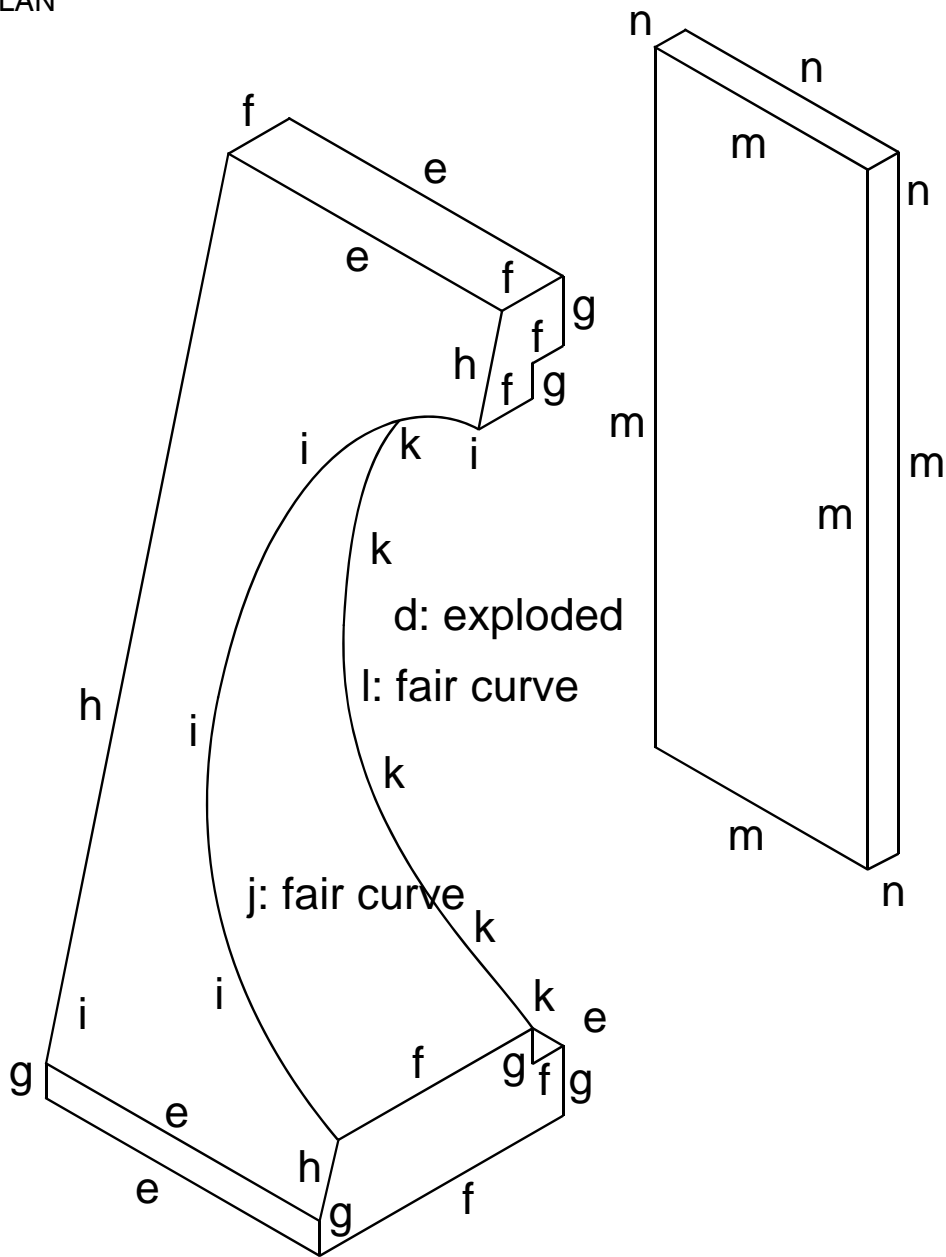
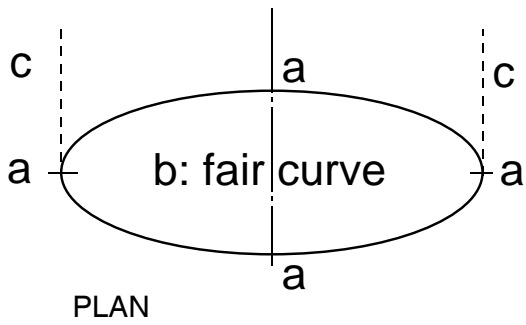
- | | | |
|-----|--|---|
| (d) | Exploded for 1 mark | 1 |
| (e) | Lines 30° left (5 for 1) | 1 |
| (f) | Lines 30° right (5 for 1; 7 for 2) | 2 |
| (g) | Lines vertical (6 for 1) | 1 |
| (h) | Lines sloping (3 for 1) | 1 |
| (i) | Front curve: start and finish for 1
intermediate points (5 for 2 marks, 3 for 1 mark) | 3 |
| (j) | Fair curve | 1 |
| (k) | Rear curve: start and finish for 1
intermediate points (5 for 2 marks, 3 for 1 mark) | 3 |
| (l) | Fair curve | 1 |

Isometric (half mirror)

- | | | |
|-----|--------------------------------------|---|
| (m) | Lines (face) (4 for 1) | 1 |
| (n) | Lines (3 lines for 1; 5 lines for 2) | 2 |

Total marks 20**Notes:**

Question 12 - Isometric (mirror assembly)



Question 13 – Planometric (old bothy)

Marks

Main body

- | | | |
|-----|---|---|
| (a) | Lines (3 for 1) | 1 |
| (b) | Lines (4 for 1; 7 for 2; 10 for 3) | 3 |
| (c) | Lines (top 2 for 1*; bottom 2 for 1) | 2 |
| (d) | Lines (4 for 1) | 1 |
| (e) | Semi circles and arcs (4) (1 mark for each) | 4 |

Door opening

- | | | |
|-----|--------------------------|---|
| (f) | Lines (3 for 1; 5 for 2) | 2 |
|-----|--------------------------|---|

Window opening

- | | | |
|-----|--------------------------------|---|
| (g) | Lines (4 for 1) arcs (3 for 1) | 2 |
|-----|--------------------------------|---|

Roof truss

- | | | |
|-----|--------------------------|---|
| (h) | Lines (4 for 1) | 1 |
| (i) | Lines (4 for 1) | 1 |
| (j) | Lines (4 for 1) | 1 |
| (k) | Lines (4 for 1; 5 for 2) | 2 |

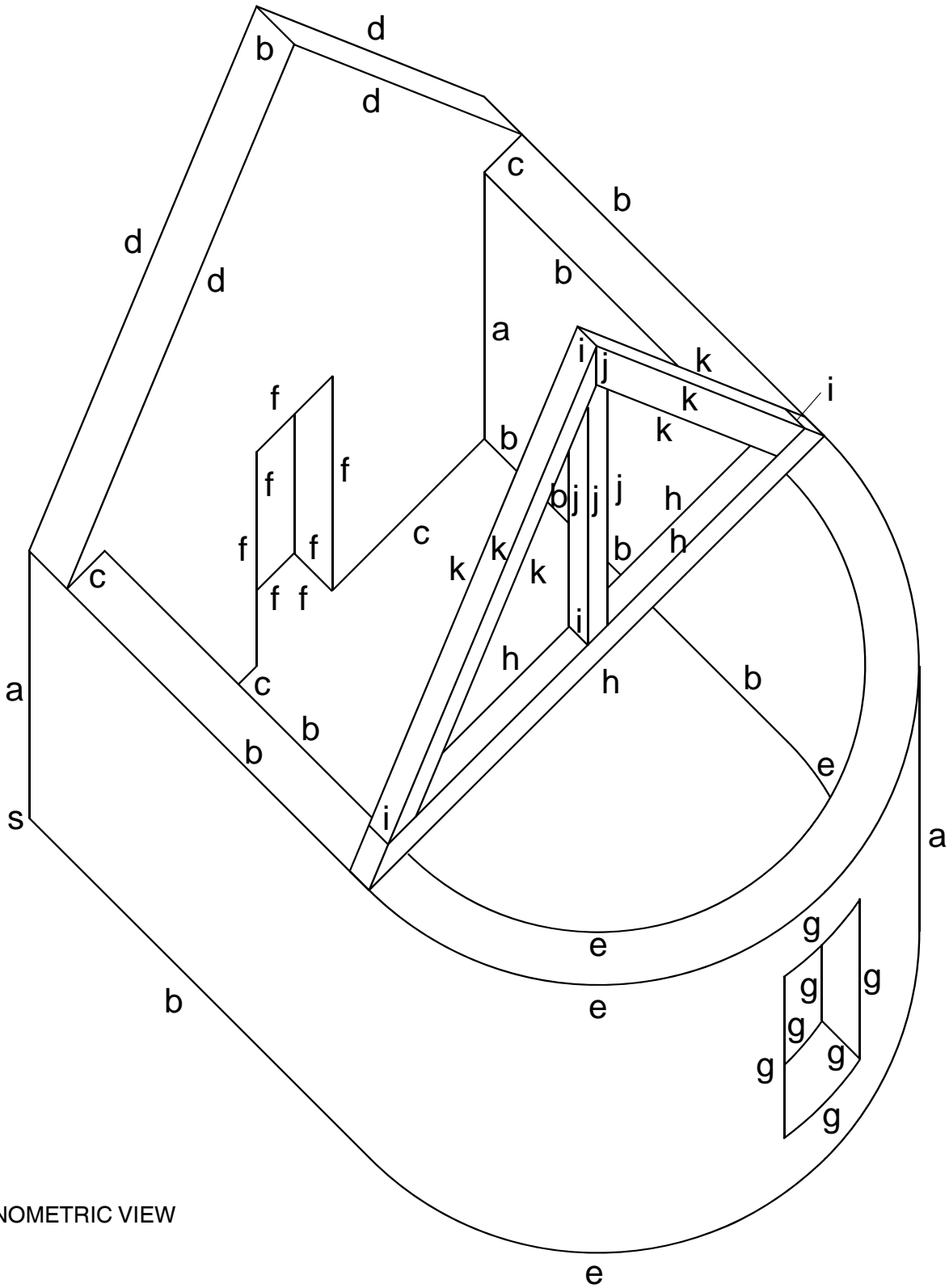
Total marks 20

Notes:

* if top 2 lines are shown as one continuous line, do not grant the mark

Question 13 – Planometric (old bothy)

Q13



PLANOMETRIC VIEW

[END OF MARKING INSTRUCTIONS]