



2010 Graphic Communication

Higher

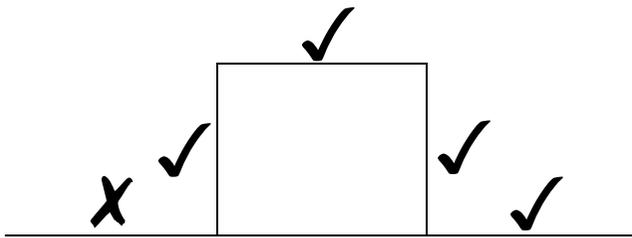
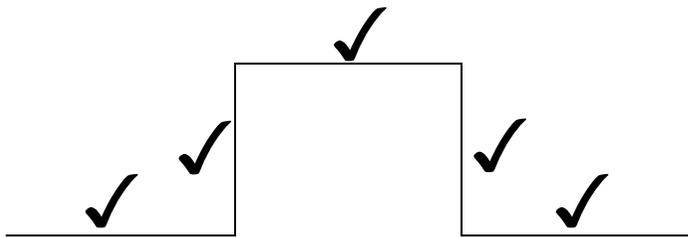
Finalised Marking Instructions

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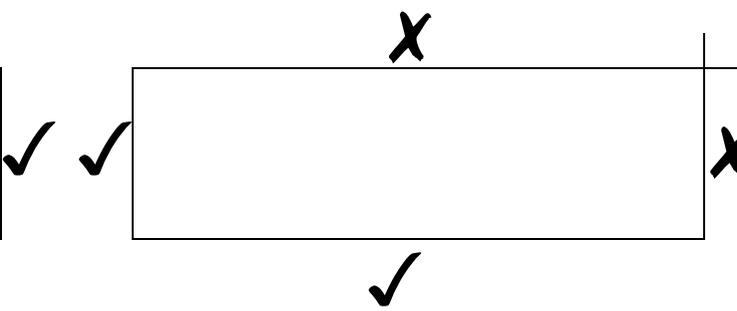
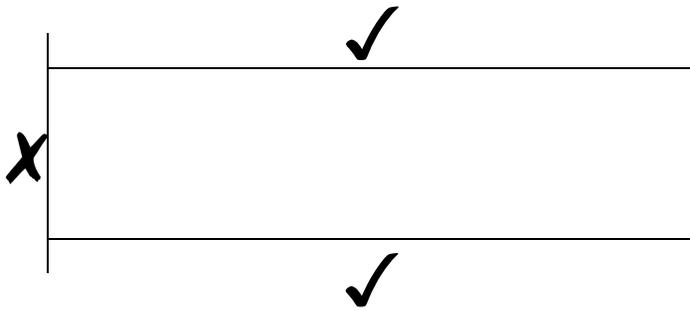
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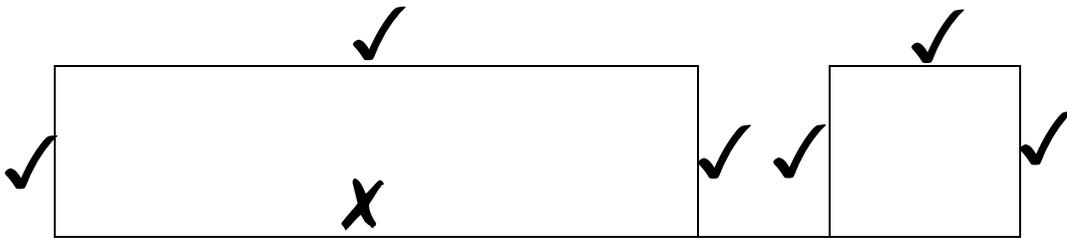


Penalty when a line is continued across a base



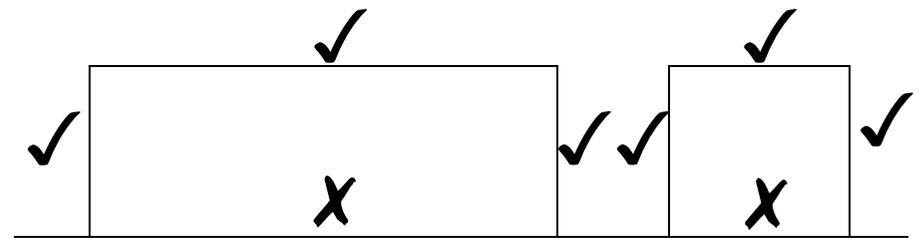
Penalty when a line is extended/continued incorrectly

Penalty when a line is incorrectly projected to another view



Elevation

End Elevation



Elevation

End Elevation

Higher Level Graphic Communication 2010

Question 1

			Marks	
(a)	(i)	SCALE:	To reduce or enlarge an object or objects.	1
	(ii)	ZOOM:	To move into or out of a drawing to show more detail or to see the bigger picture.	1
	(iii)	MIRROR:	To reflect an image or drawing about an axis.	1
	(iv)	PAN:	To shift the location of the view point of the drawing, without zooming in or out	1
	(v)	ROTATE:	Turns an image or drawing about a specified point.	1
	(vi)	LIBRARY:	To use or store commonly used parts for use in future drawings.	1
	(vii)	GRIDLOCK/SNAP:	Attaches the ends of a line to a grid or specific point.	1
	(viii)	COPY:	Duplicates an object or drawing.	1
(b)	(i)	Drum plotter:	Paper moves backwards and forwards over the drum in the X axis, the pen moves across the drum in the Y axis.	
	(ii)	Flatbed plotter:	Paper is fixed, pen moves in both X and Y axis.	2
			Total marks	10

Notes:

Candidates should not repeat the term in their answer.

Question 2

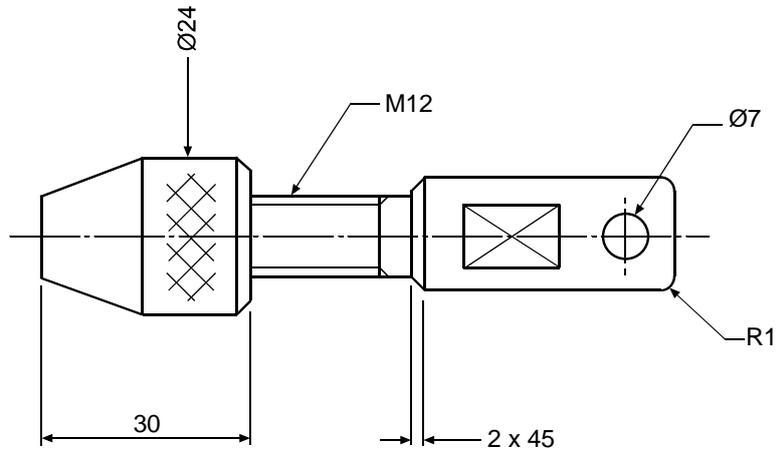
	Marks
(a) (i) Revolved Section.	
(ii) Removed Section.	
(iii) Local or Part Section.	
(iv) Half Section.	4
(b) (i) External, outer or male thread.	
(ii) Internal or female thread.	2
	Total marks 6

Notes:

Question 3

Marks

(a)



6

(b)

2

Total marks 8

Notes:

Only BS 8888 accepted

Dimension lines and leaders, 6 of (1 for 1, 3 for 2, 4 for 3, 6 for 4)

Text correctly positioned (2 for 1, 6 for 2)

Question 4

	Marks
(a) Reverse or white on black	1
(b) Portrait	1
(c) (i) Rule	
(ii) Sub Heading	
(iii) Caption	
(iv) Left hand margin	
(v) Gutter	
(vi) Folio/Footer	6
	Total marks 8

Notes:

Question 5

			Marks
(a)	Scale:	1:50, 1:100.	
	Description:	To show an internal view of the house from above. A sectional Plan to show internal details.	2
(b)	Scale:	1:200, 1:250, 1:500.	
	Description:	To show the site boundary and the outline of the new building.	2
(c)	Scale:	1:1250, 1:2500.	
	Description:	To identify the location of the site within its surroundings. To show the local area around the site.	2
Total marks			6

Notes:

Question 6**Marks**

Maximum gap

$$= 100.75 - (39.75 + 39.75)$$

$$= 100.75 - 79.5$$

$$= \underline{21.25}$$

Minimum gap

$$= 99.75 - (40.75 + 40.75)$$

$$= 99.75 - 81.5$$

$$= \underline{18.25}$$

2**Total marks 2****Notes:**

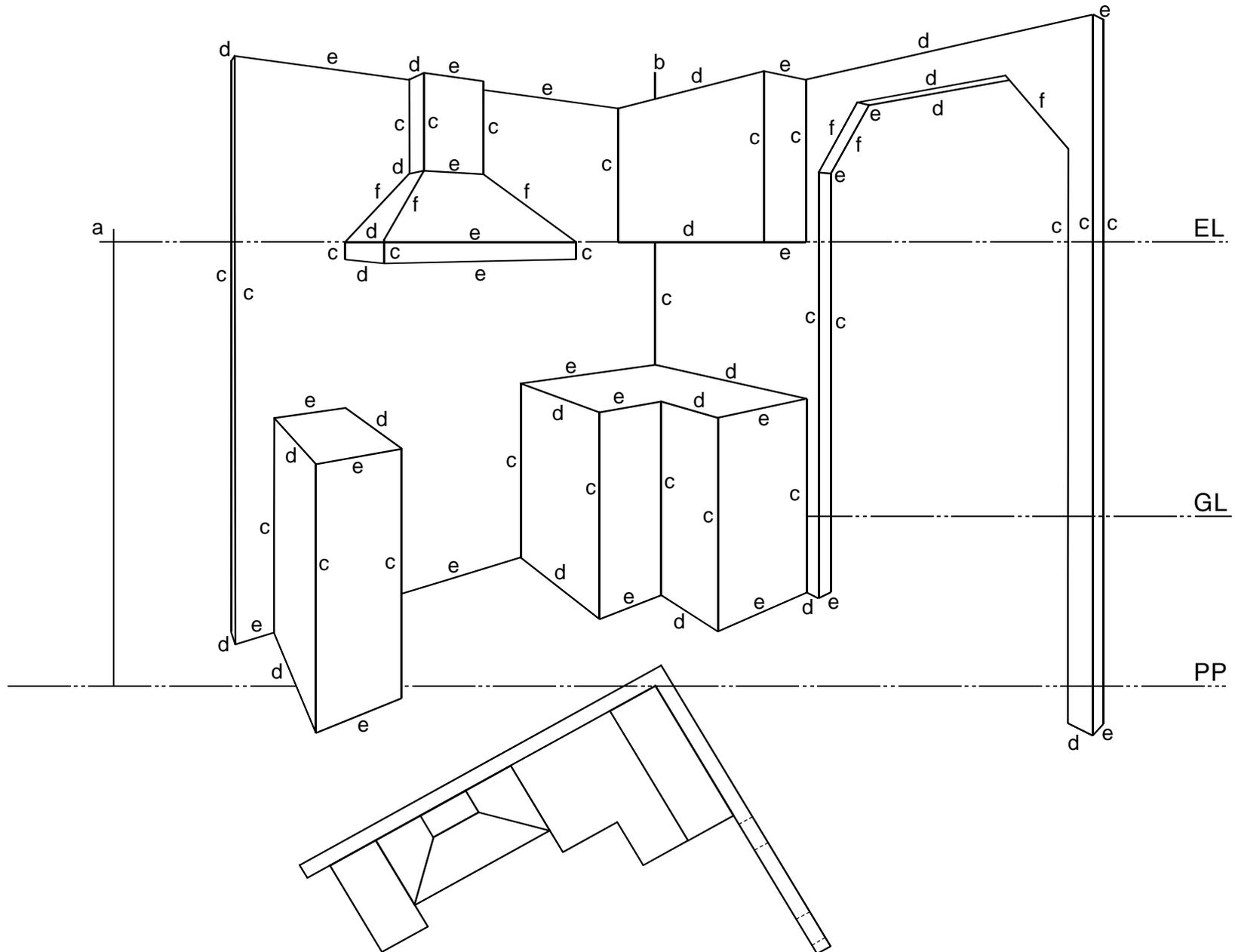
Question 7 (a) – Perspective

	Marks
(a) VP1 and VP2 vanishing points to left and right	1
(b) Height line: any one correctly positioned and used	1
(c) Vertical lines 25 Walls 8 Units 11 Hood 6 Correct vertical location (4 for 1, 8 for 2, 12 for 3, 16 for 4, 20 for 5, 25 for 6)	6
(d) Lines to Left VP 21 Walls 7 Units 10 Hood 4 (4 for 1, 8 for 2, 12 for 3, 16 for 4, 21 for 5)	5
(e) Lines to Right VP Walls 9 Units 10 Hood 4 (4 for 1, 8 for 2, 12 for 3, 18 for 4, 23 for 5)	5
(f) Sloping lines, hood and door (3 for 1, 6 for 2)	2
Total marks	20

Notes:

- (c) **Correct location and start/finish required.**

Question 7 (a) – Perspective



Question 7 (b) – Cooker hood

Marks

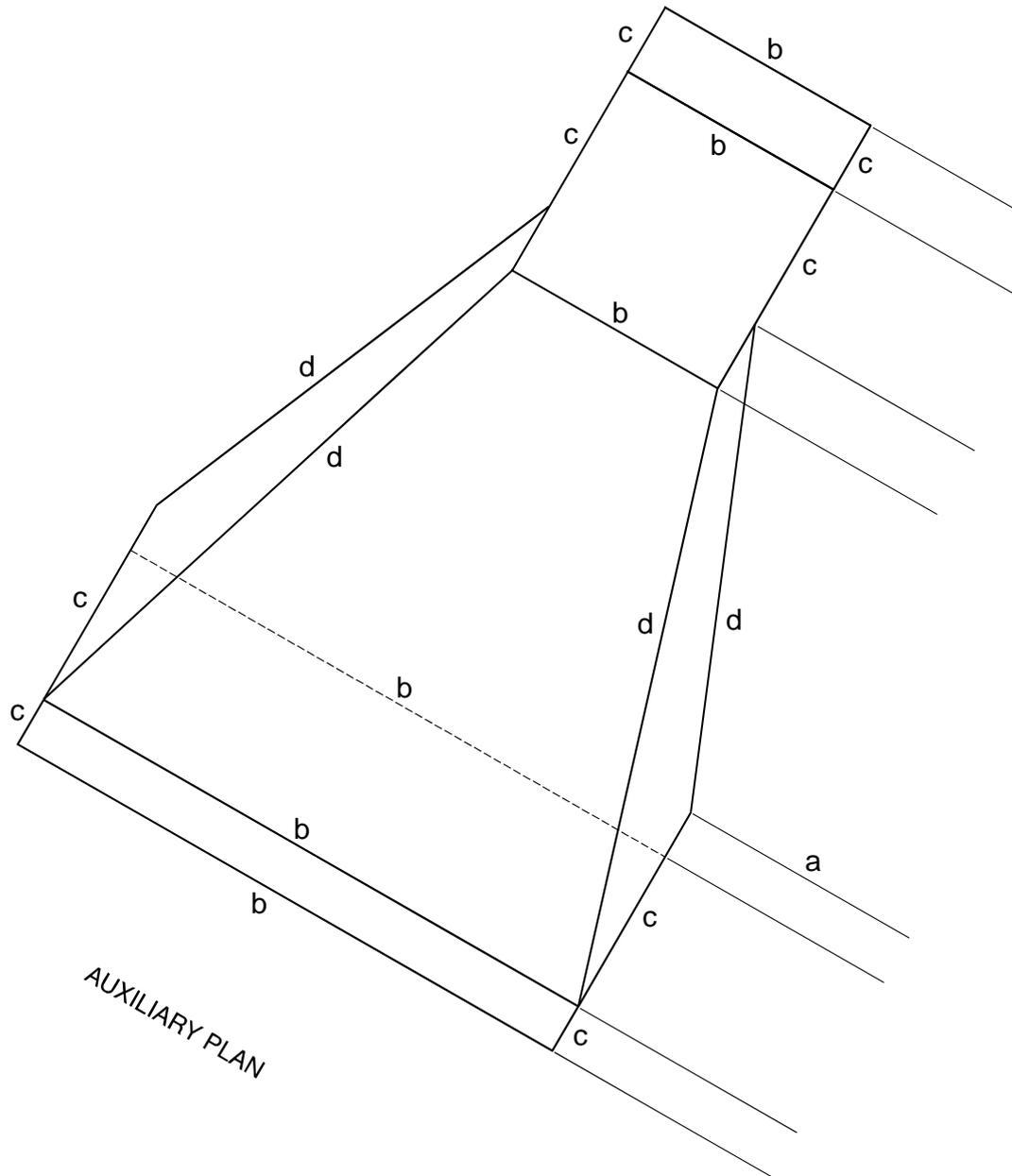
Auxiliary

- | | | |
|-----|---|----------|
| (a) | Correct projection; 60° to show true shape of surface A. (min 5 lines) | 1 |
| (b) | Lines 30° , 5 solid, 1 broken (2 for 1, 4 for 2, 6 for 3) | 3 |
| (c) | Lines 60° , 8 solid (2 for 1, 4 for 2, 6 for 3, 8 for 4) | 4 |
| (d) | Lines sloping, 4 solid (2 for 1, 4 for 2) | 2 |

Total marks 10

Notes:

Question 7 (b) – Cooker hood – Auxiliary plan



Question 8 – Drilling table

Marks

End Elevation

The mark for the position of the collar is allocated within (a).

- | | | |
|-----|---|---|
| (a) | Solid lines, 8 horizontal, 16 vertical
(3 for 1, 6 for 2, 9 for 3, 12 for 4, 16 for 5, 20 for 6, 24 for 7) | 7 |
| (b) | Hidden lines, 8 horizontal, 14 vertical
(3 for 1, 6 for 2, 9 for 3, 12 for 4, 16 for 5, 22 for 6) | 6 |
| (c) | Sloping lines (2 for 1) | 1 |
| (d) | Thread detail, 4 hidden lines for 1 mark | 1 |

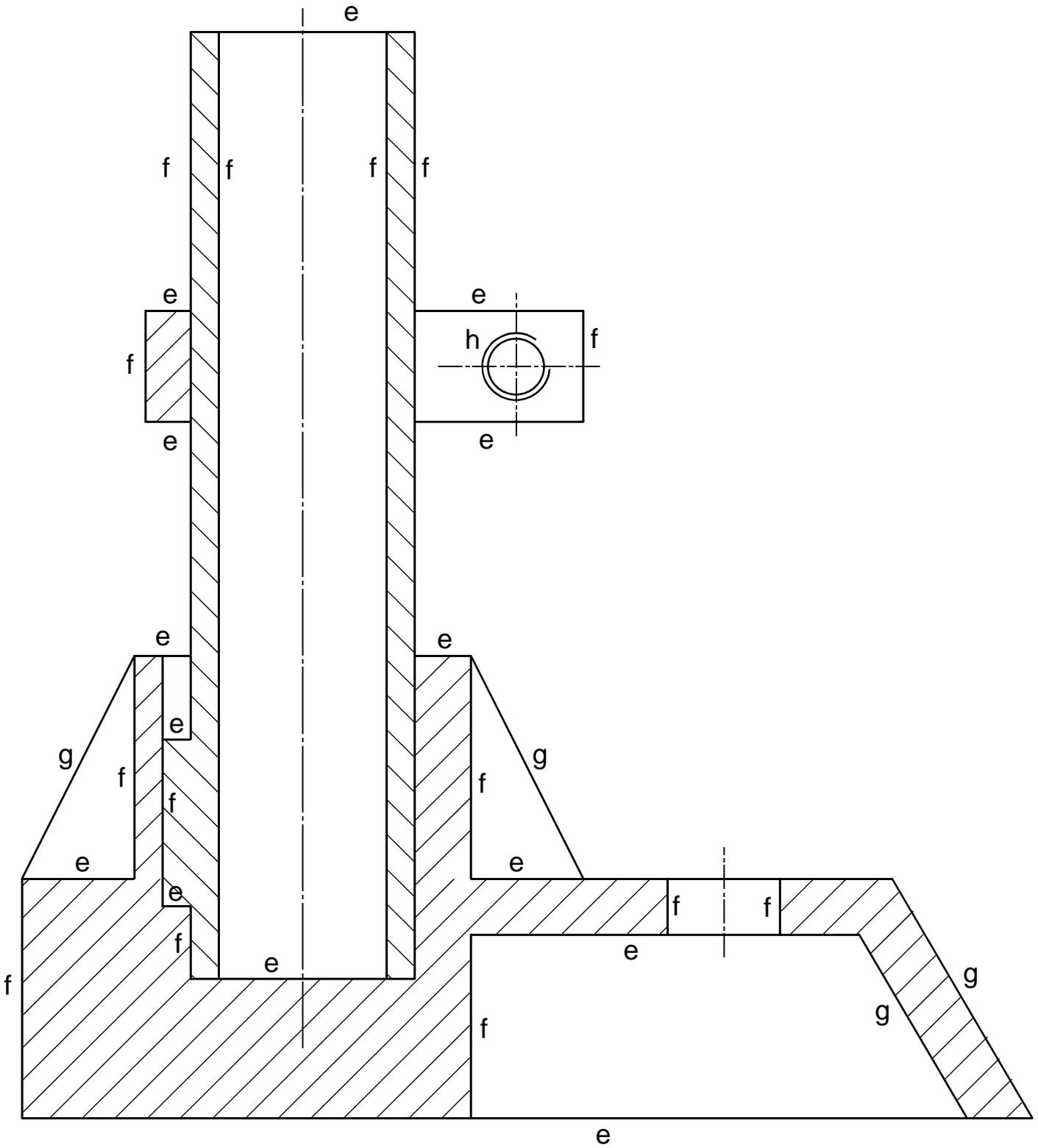
Sectional Elevation

- | | | |
|-----|---|---|
| (e) | Solid lines, 14 horizontal
(3 for 1, 6 for 2, 9 for 3, 12 for 4, 14 for 5) | 5 |
| (f) | Solid lines, 14 vertical
(3 for 1, 6 for 2, 9 for 3, 12 for 4, 14 for 5) | 5 |
| (g) | Sloping lines (4 for 1) | 1 |
| (h) | Tapped hole to British Standards for 1 mark | 1 |
| (i) | Hatching 45°, opposite direction (min 2 parts, not herring boned) for 1 mark | 1 |
| (j) | Hatching, 5 areas for 2 marks, 2 areas for 1 mark | 2 |

Total marks 30

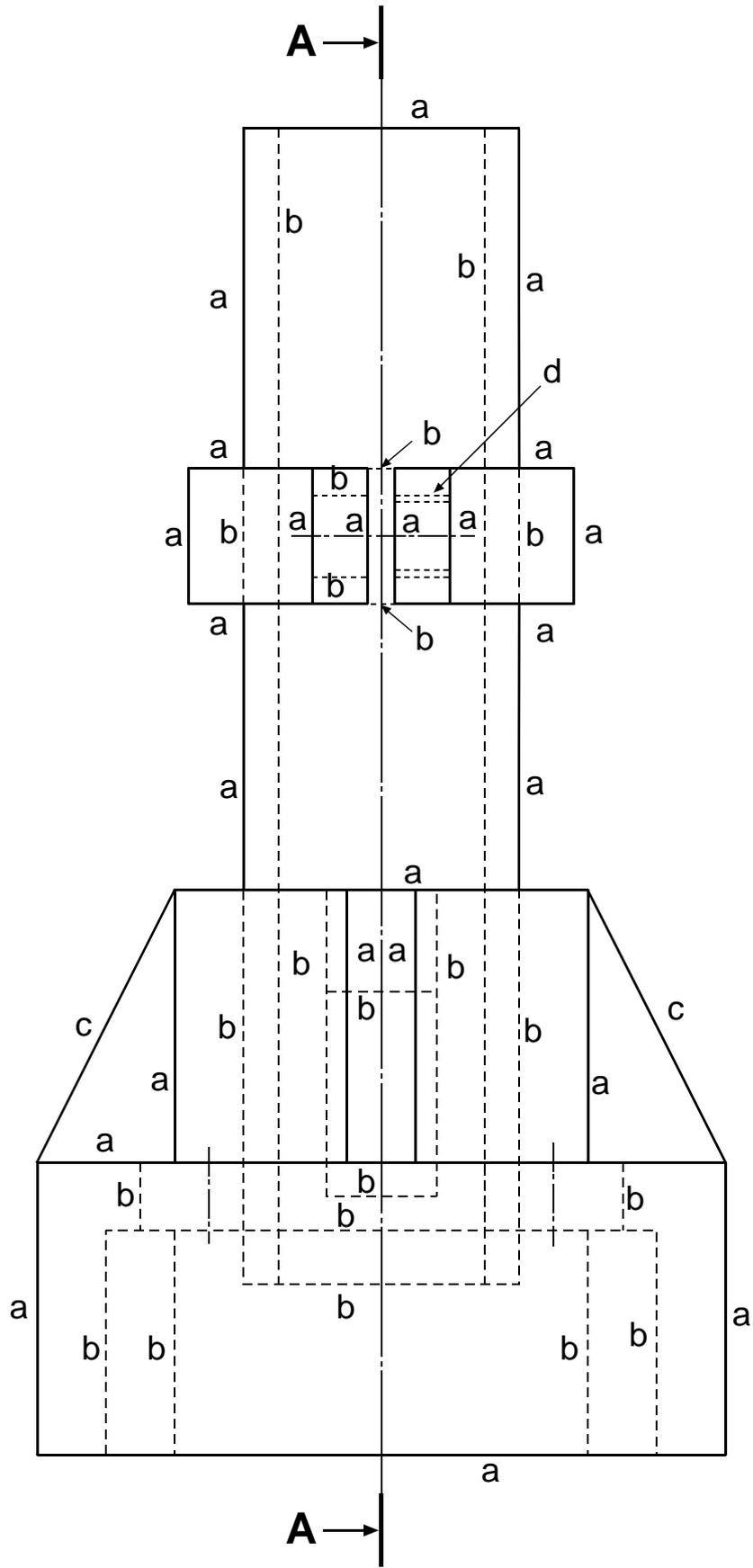
Notes:

Question 8 – Drilling Table – Sectional Elevation



SECTIONAL ELEVATION A-A

Question 8 – Drilling Table – End Elevation



END ELEVATION

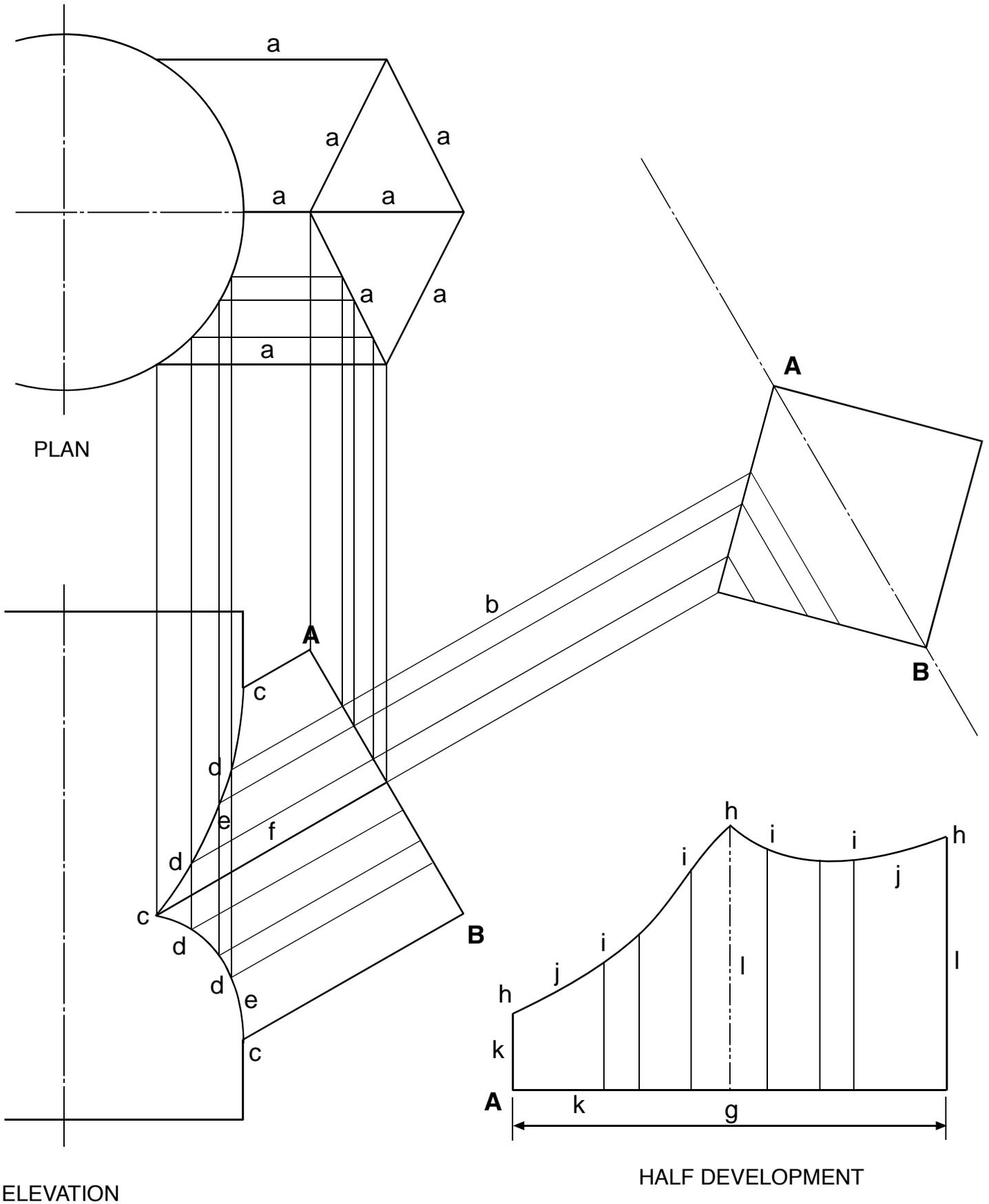
Question 9 – Interpenetration & Development

	Marks
Plan	
(a) Lines, horizontal 4, sloping 4 (2 for 1, 4 for 2, 6 for 3, 8 for 4)	4
Elevation	
(b) Valid construction	1
(c) Start, mid and finish points	1
(d) Intermediate points, 2 on each curve (2 for 1, 4 for 2)	2
(e) Fair curves, 2 1 mark each	2
(f) Line, solid for 1 mark	1
Development	
(g) Correct length (+ or – 1 mm) for 1 mark	1
(h) Critical heights, 3 (1 for 1, 3 for 2)	2
(i) Intermediate points, 2 on each curve (2 for 1, 4 for 2)	2
(j) Fair curves 2, 1 mark each	2
(k) Lines, solid, 2 for 1 mark	1
(l) Fold lines drawn to British Standards for 1 mark	1
Total marks	20

Notes:

If drawn as a cylinder apply the follow-on rule.

Question 9 – Interpenetration



Question 10 (a) – Child Seat

	Marks
Oblique	
(a) Lines 11, horizontal 3, vertical 5, 45° 3 (3 for 1, 7 for 2, 11 for 3)	3
(b) Arcs, 2 location and radius required for 1 mark each	2
(c) Construction points for curve, min 5 (3 for 1, 5 for 2)	2
(d) Fair curve for 1 mark	1
(e) Projection of (c) for 1 mark	1
(f) Fair curve for 1 mark	1
Total marks	10

Notes:

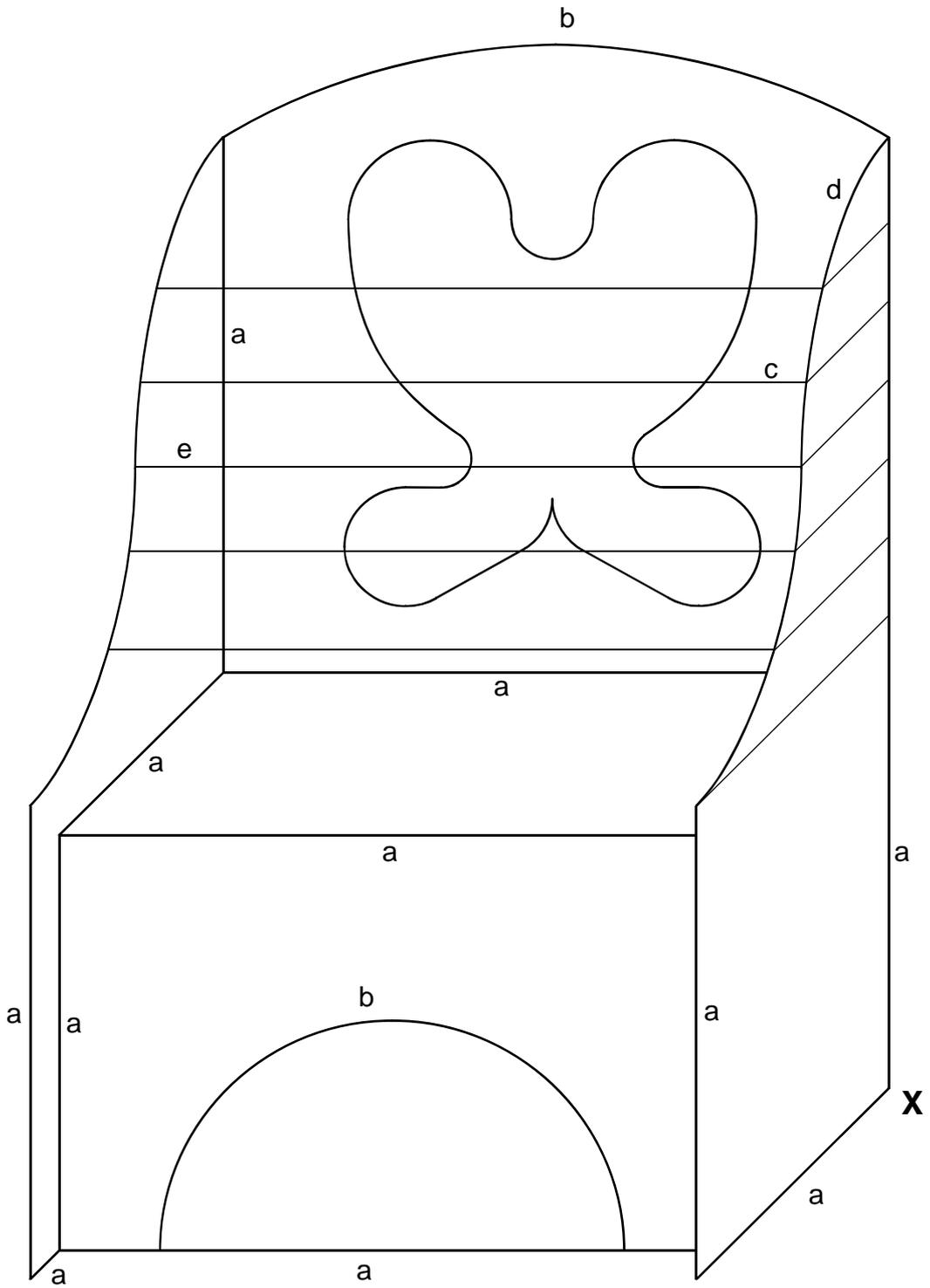
If drawn cavalier, do not count 45° lines at (a) or construction at (c).

Question 10 (b) – Tangency

	Marks
(a) Centres, clearly shown and located, 5 (1 for 1, 3 for 2, 5 for 3)	3
(b) Arcs, correct radii, 6 (2 for 1, 4 for 2, 6 for 3)	3
(c) Smooth arcs, no tails, firm lines, 6 (2 for 1, 4 for 2, 6 for 3)	3
(d) Lines, tangent (2 for 1)	1
Total marks	10

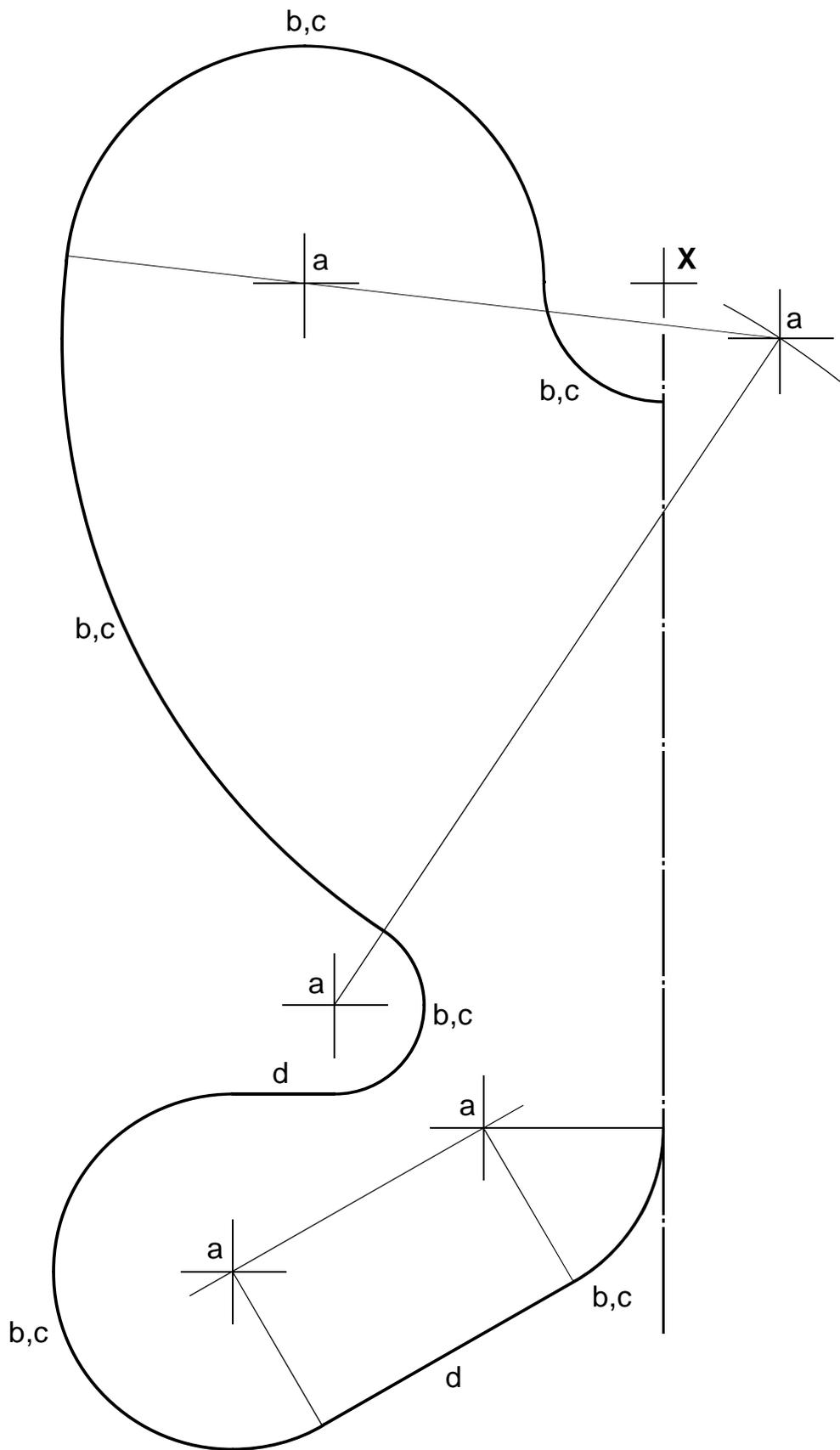
Notes:

Question 10 (a) – Child Seat – Oblique



OBLIQUE

Question 10 (b) – Child Seat – Tangency

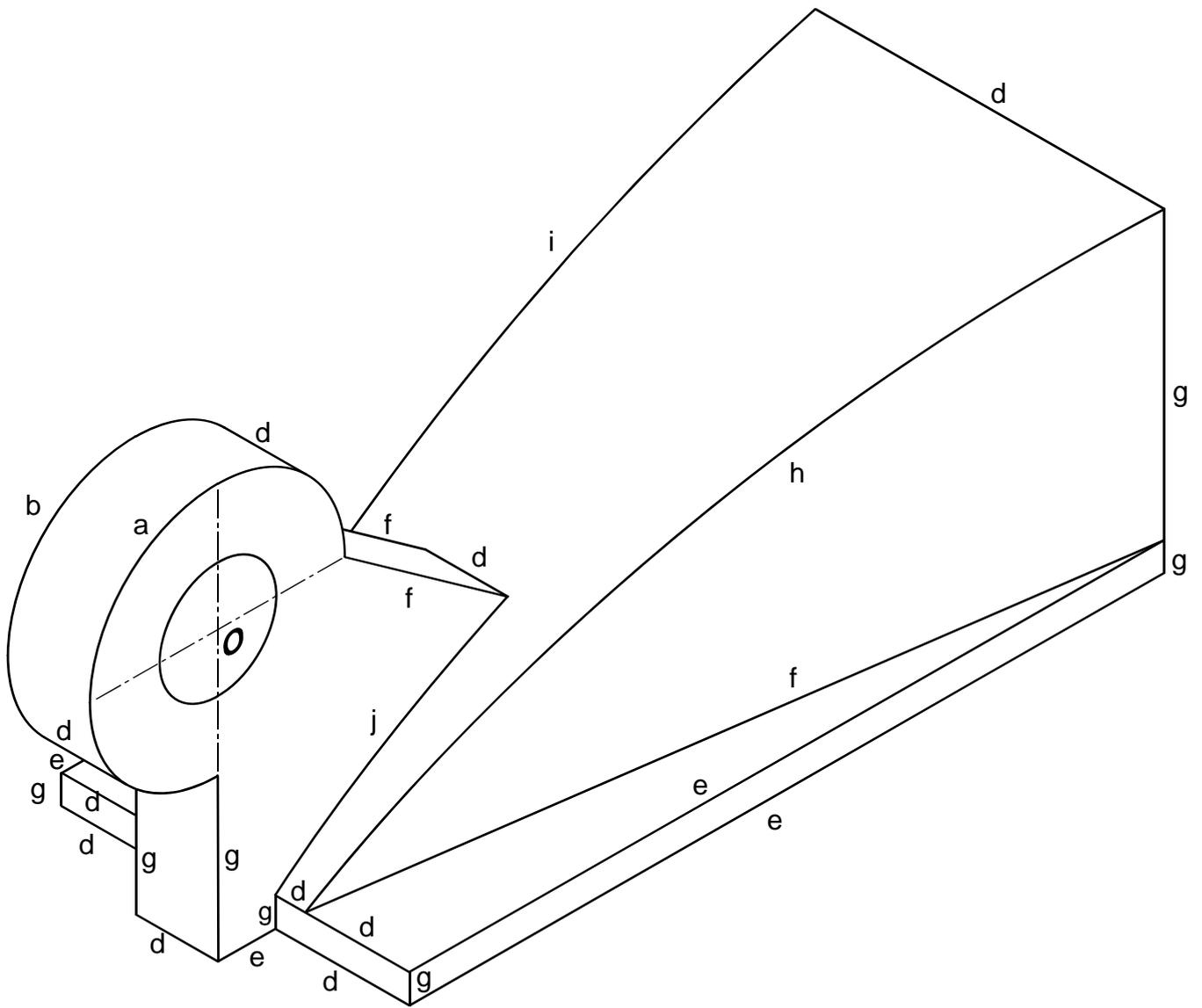


Question 11– Isometric

	Marks
(a) Construction of part circle (4 for 1, 7 for 2, 10 for 3)	3
(b) Construction of back circle (4 for 1, 5 for 2)	2
(c) Fair curve for both	1
(d) 30 lines to the left (5 for 1, 10 for 2)	2
(e) 30 lines to the right (4 for 1)	1
(f) Sloping lines (1 for 1, 3 for 2)	2
(g) Vertical lines (3 for 1, 7 for 2)	2
(h) First curve 1 mark for start and finish 2 marks for 4 intermediate points, 1 mark for 2	3
(i) Second curve (3 for 1, 5 for 2)	2
(j) Third curve (3 for 1)	1
(k) Fair curve (any two curves from (h, i, j))	1
Total marks	20

Notes:

Question 11 – Isometric



ISOMETRIC

[END OF MARKING INSTRUCTIONS]