



2011 Graphic Communication

Higher

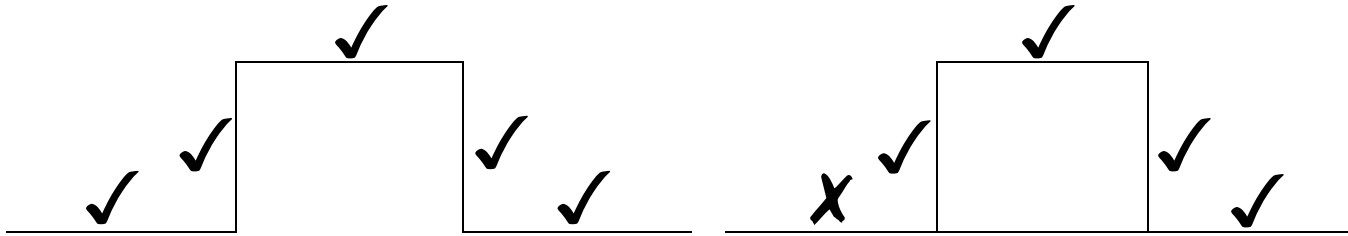
Finalised Marking Instructions

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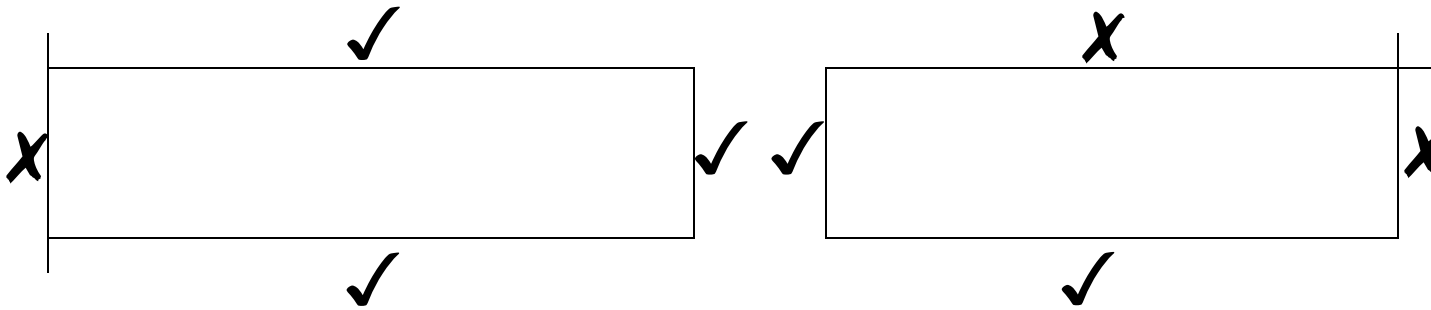
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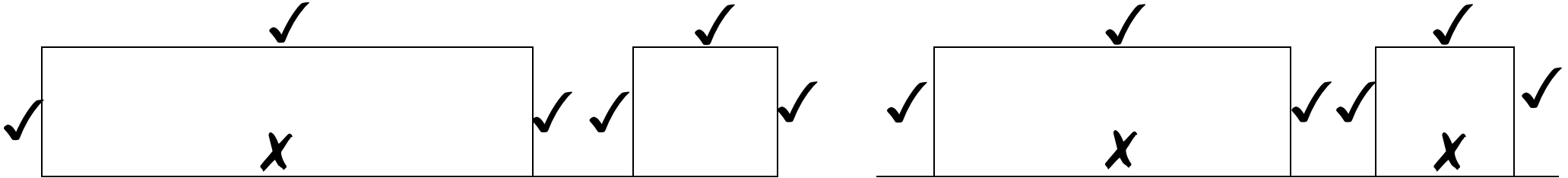


Penalty when a line is continued across a base



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 2011

Question 1

		Marks
Page orientation:	Description of landscape and portrait.	1
Rule:	Line below text or between columns.	1
Caption:	Text below a graphic usually giving a description.	1
Gutter:	Gap between columns of text.	1
Reverse:	White text on a black background.	1
Header:	Text at the top of a page, repeated throughout the document.	1
Margin:	The area of white space at the outside of a printed page.	1
	Total marks	7

Notes: The question asks for a **description**, sketches should aid understanding of the text, not replace it.

Question 2

	Marks
(a) Thumbnails.	1
(b) Visuals or working roughs. Accept: rough layout.	1
Total marks	2

Question 3

			Marks
(a)	(i)	Category: Production.	1
	(ii)	Purpose: To provide information (not just sizes, dimensions or tolerances) needed to manufacture an object.	1
(b)	Graphic:	Any chart, graph, flyer, banner, poster, business card, etc.	1
Total marks			3

Question 4

			Marks
(a)	View 1,2:	Isometric, Oblique, any Perspective, Planometrics. Not sketches. 1 mark for each correct view.	2
(b)	(i)	Hardware Modem. Accept: router.	1
	(ii)	Hardware Scanner. (Digital camera, not digitizer.)	1
	(iii)	Hardware Any type of printer (not plotter, or just printer).	1
Total marks			5

Question 5

			Marks
(a)	Box A	Third Angle Orthographic Projection Symbol.	1
	Accept:	Projection symbol, Third Angle projection.	
(b)	Name, Title of drawing, Scale, Date, Tolerances, Title, Drawing number.		
	Accept:	material, surface finish.	5
(c)	X – X	Removed section.	1
	Y – Y	Section in more than one parallel plane, stepped section.	1
(d)	P	Description: Thick, continuous. Application: Visible edges and outlines.	
	Q	Description: Chain Thin. Application: <i>Centre lines, lines of symmetry.</i>	1
	R	Description: <i>Continuous thin with zigzags.</i> Application: Limits of partial or interrupted views.	1
	S	Description: Dashed thin. Application: <i>Hidden outline and edges.</i>	1
	T	Description: Chain thin, thick at ends. Application: <i>Cutting planes.</i>	1
	U	Description: <i>Continuous thin.</i> Application: Dimensions, projection, leader lines, hatching, outline of revolved sections, short centre lines and imaginary intersections.	1
Total marks			13

Question 6

			Marks
(a)	(i)	Term Colour gradient.	1
	(ii)	Term Highlight.	1
(b)	Tonal Scale:	The gradual transition between light and dark (colour or grey).	1
(c)	Advantage:	Avoids clutter, separate parts of the drawing can be printed individually, parts of the drawing can be 'turned off' to allow greater detail to be displayed, allows different parts of the drawing to be allocated line types, line thickness or colour.	
		Any two, one mark each.	2
Total marks			5

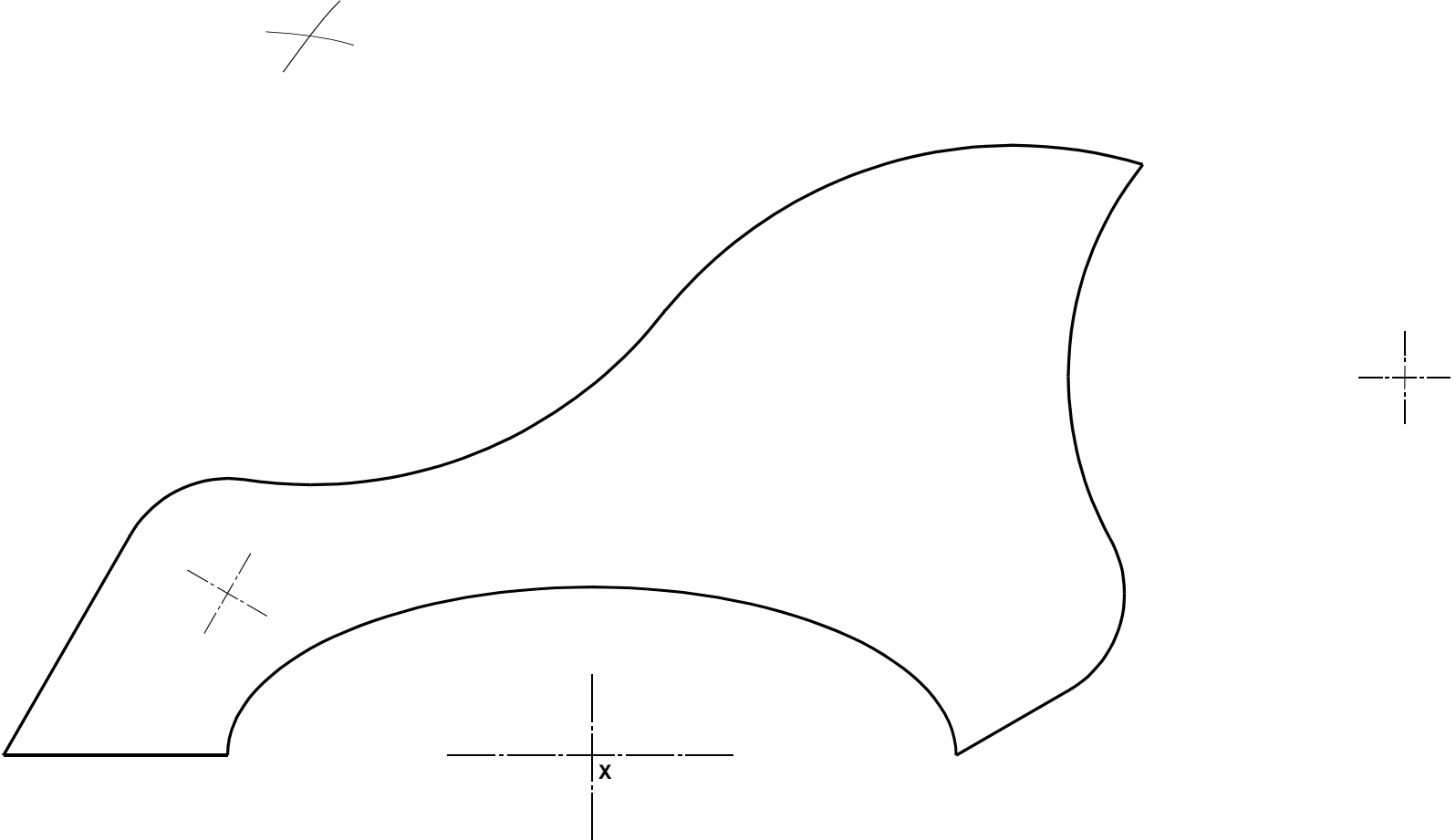
Question 7

	Marks
(a) Method 1: Parallel dimensioning.	1
Method 2: Chain dimensioning.	1
Method 3: Coordinate dimensioning.	1
(b) (i) Advantage: Inaccuracies or tolerances are not accumulated, avoiding large errors.	1
(ii) Advantage: Reduces clutter within the drawing, makes the drawing clearer.	1
Total marks	5

Question 8 – Tangency

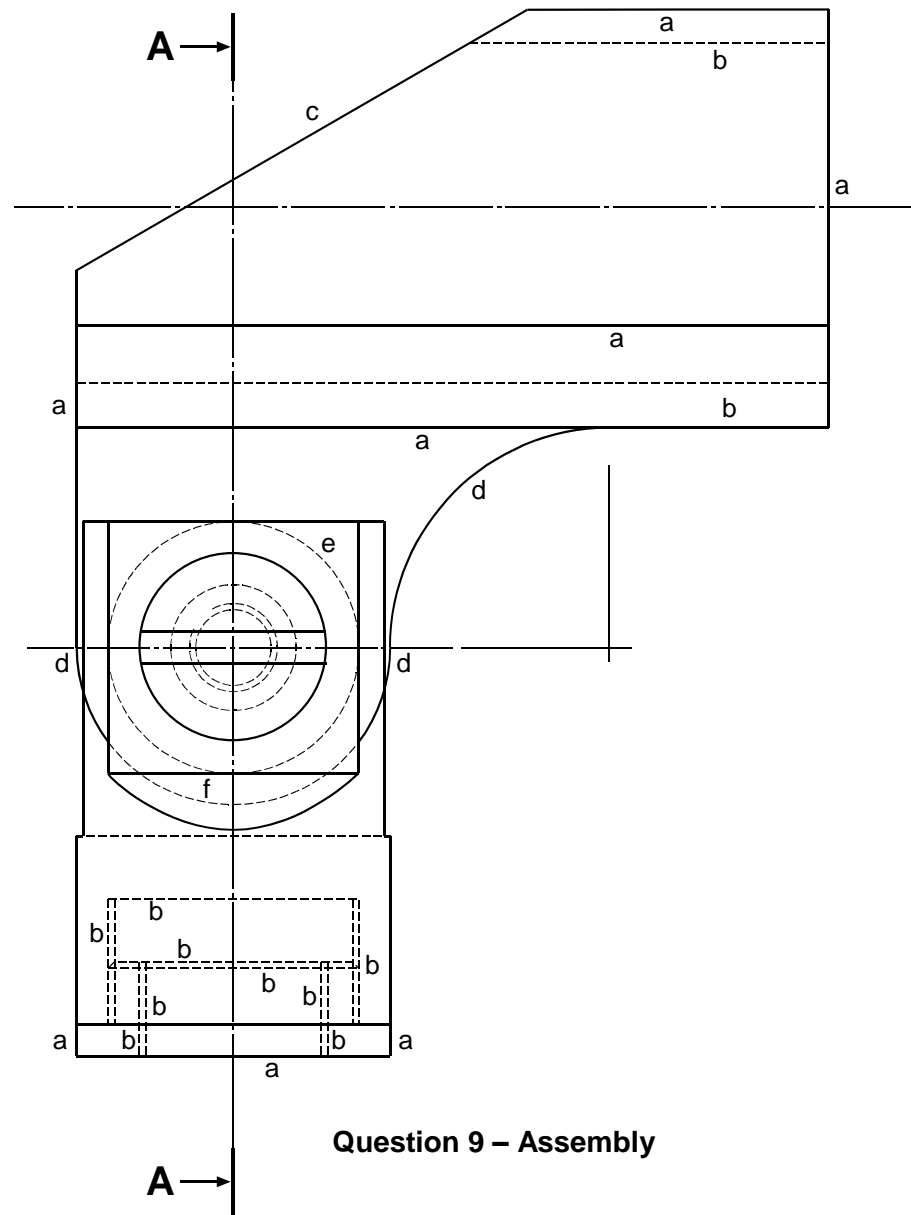
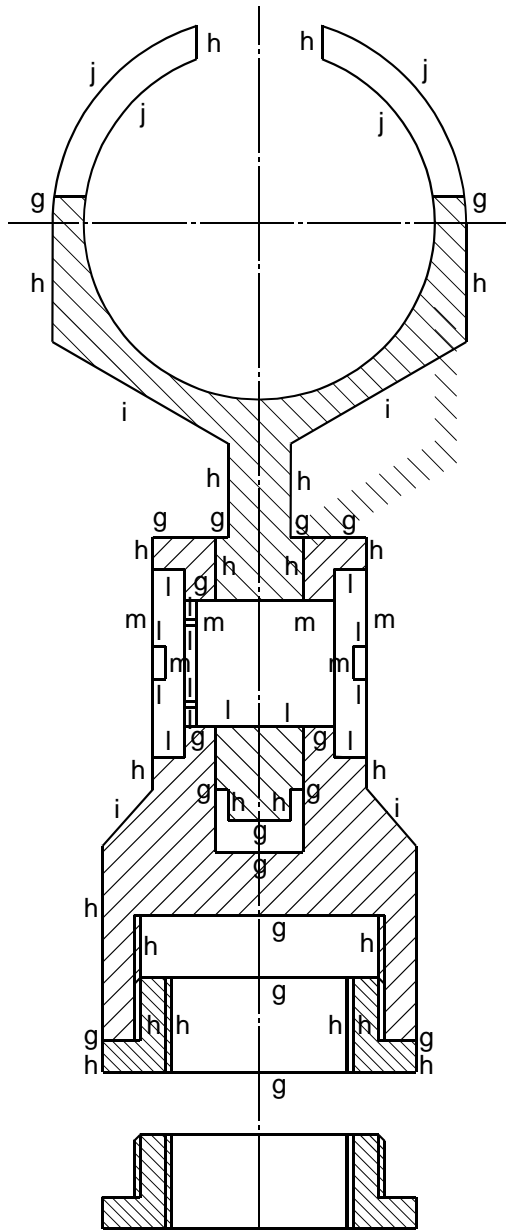
	Marks
(a) Part ellipse (3 critical points for 1) (4 intermediate points for 1)	2
(b) Straight lines 3	1
(c) Centres, clearly shown and located 4 (2 for 1) (4 for 2)	2
(d) Arcs, correct radii 5 (2 for 1) (5 for 2)	2
(e) Smooth arcs, no tails, firm lines 5 (2 for 1) (4 for 2) (5 for 3)	3
Total marks	10

Question 8 – Tangency



Question 9 – Assembly

	Marks
Evaluation	
(a) Horizontal and vertical Full 8 (2 for 1) (4 for 2) (6 for 3) (8 for 4)	4
(b) Horizontal and vertical Hidden 13 (2 for 1) (6 for 2) (9 for 3) (13 for 4)	4
(c) Sloping 1	1
(d) Arc Full 3	1
(e) Full Circle Hidden 1	1
(f) Arc Hidden 1	1
Sectional End elevation	
Sectioned parts	
(g) Horizontal Full 17 (5 for 1) (10 for 2) (17 for 3)	3
(h) Vertical Full 28 (5 for 1) (10 for 2) (15 for 3) (20 for 4) (28 for 5)	5
(i) Sloping lines 4 (2 for 1) (4 for 2)	1
(j) Arcs 3	1
(k) Hatching 7 (3 for 1) (7 for 2) 1 for thread detail	3
Connectors	
(l) Horizontal Full 14 (5 for 1) (10 for 2) (14 for 3)	3
(m) Vertical Full 7 (4 for 1) (7 for 2)	2
Total marks	30



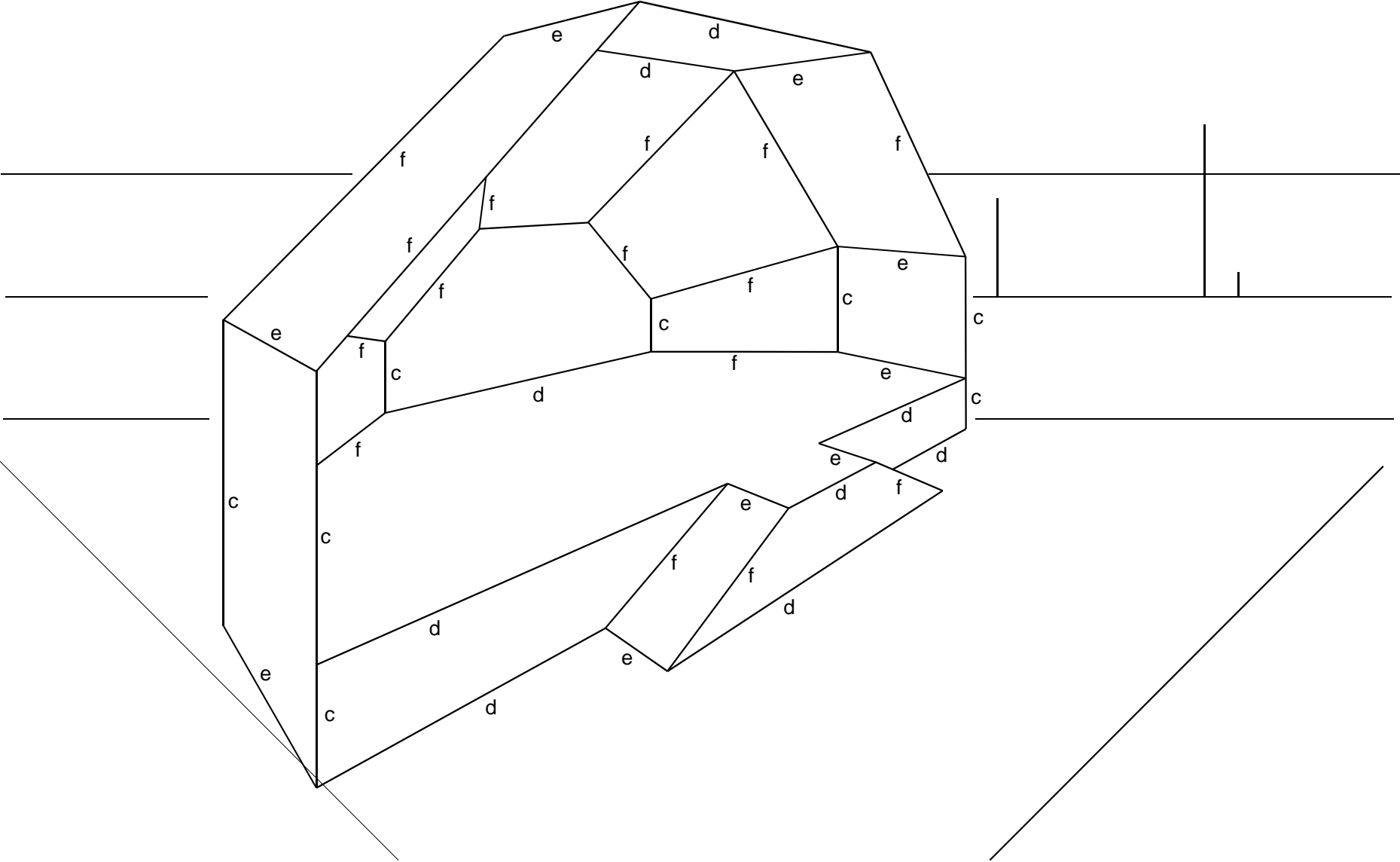
Question 9 – Assembly

Question 10 – Measured perspective

	Marks
(a) Vanishing points left and right	1
(b) Height lines: any one correctly positioned and used	1
(c) Vertical lines 8 (4 for 1) (6 for 2) (8 for 3)	3
(d) Lines to the right 10 (2 for 1) (4 for 2) (6 for 3) (8 for 4) (10 for 5)	5
(e) Lines to the left 9 (2 for 1) (4 for 2) (6 for 3) (9 for 4)	4
(f) Sloping 15 (2 for 1) (5 for 2) (7 for 3) (9 for 4) (12 for 5) (15 for 6)	6
Total marks	20

Notes: (c) Correct location and start/finish required.

Question 10 – Measured perspective



Question 11 – Shower Support

Marks

Auxiliary Plan

- | | | |
|-----|---|---|
| (a) | Construction for auxiliary ellipses and curve (Plan and projection lines) | 1 |
| (b) | Outer ellipse, 4 critical, 8 intermediate points (4 for 1, 12 for 2) | 2 |
| (c) | Inner ellipse, 4 critical, 8 intermediate points (4 for 1, 12 for 2) | 2 |
| (d) | Curve of interpenetration, 3 critical, 4 intermediate, min 6 for 1 mark | 1 |
| (e) | Fair curves, 2 ellipses for 1 mark | 1 |
| (f) | Fair curve and 2 lines for 1 mark | 1 |

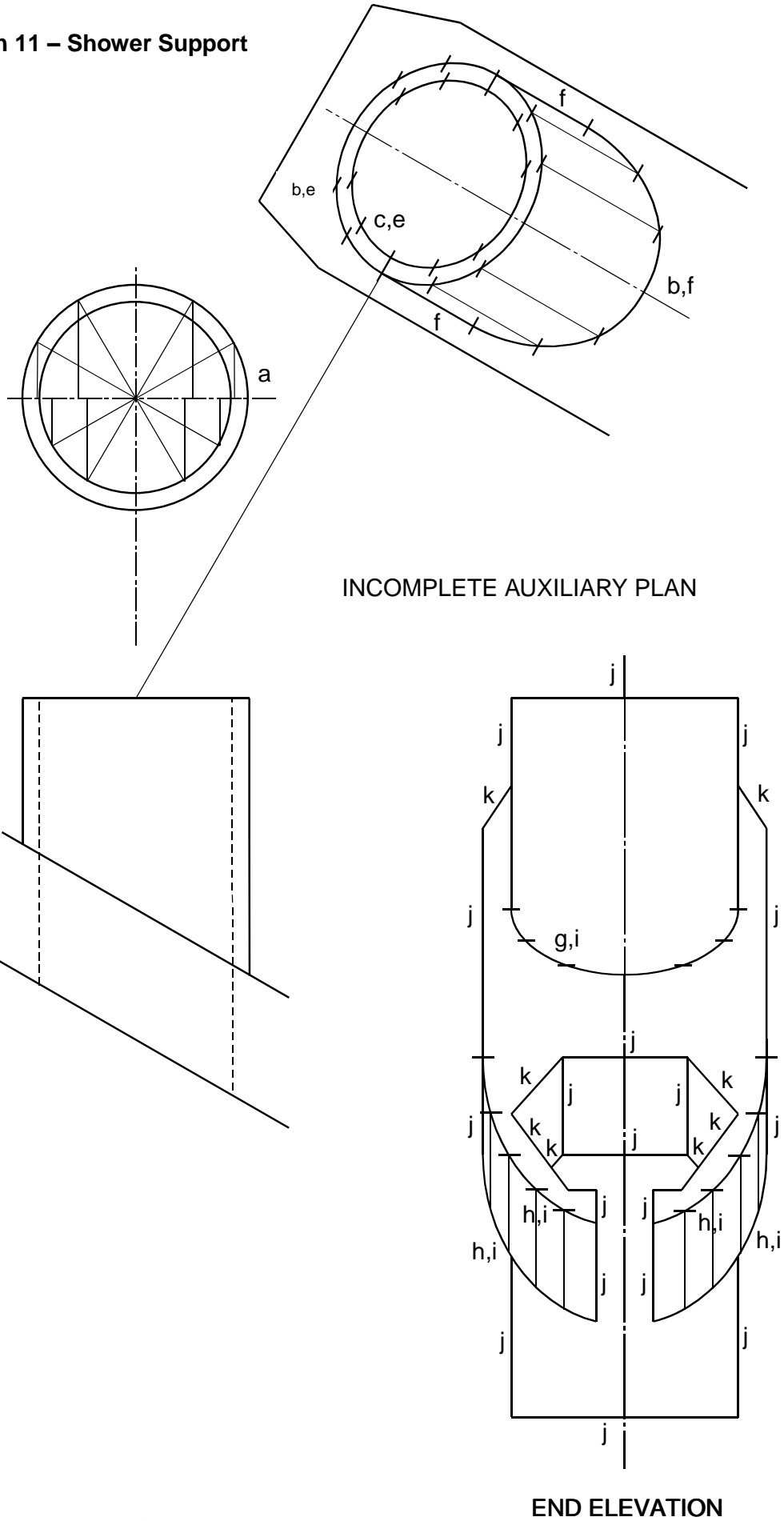
End Elevation

- | | | |
|-----|--|---|
| (g) | Partial ellipse, 3 critical, 4 intermediate points for 1 mark | 1 |
| (h) | Curves, min 6 critical, min 8 intermediate, (4 for 1, 10 for 2, 14 for 3) | 3 |
| (i) | Fair curves 5, (2 for 1, 5 for 2) | 2 |
| (j) | Lines, horizontal 6 and vertical 14, (5 for 1, 10 for 2, 15 for 3, 20 for 4) | 4 |
| (k) | Lines, sloping 8 (4 for 1, 8 for 2) | 2 |

Total marks **20**

- Notes:** (h) Accept lower critical points if complete curves, however, ensure 4 outer critical points are counted.
(i) Accept joined curves as two.

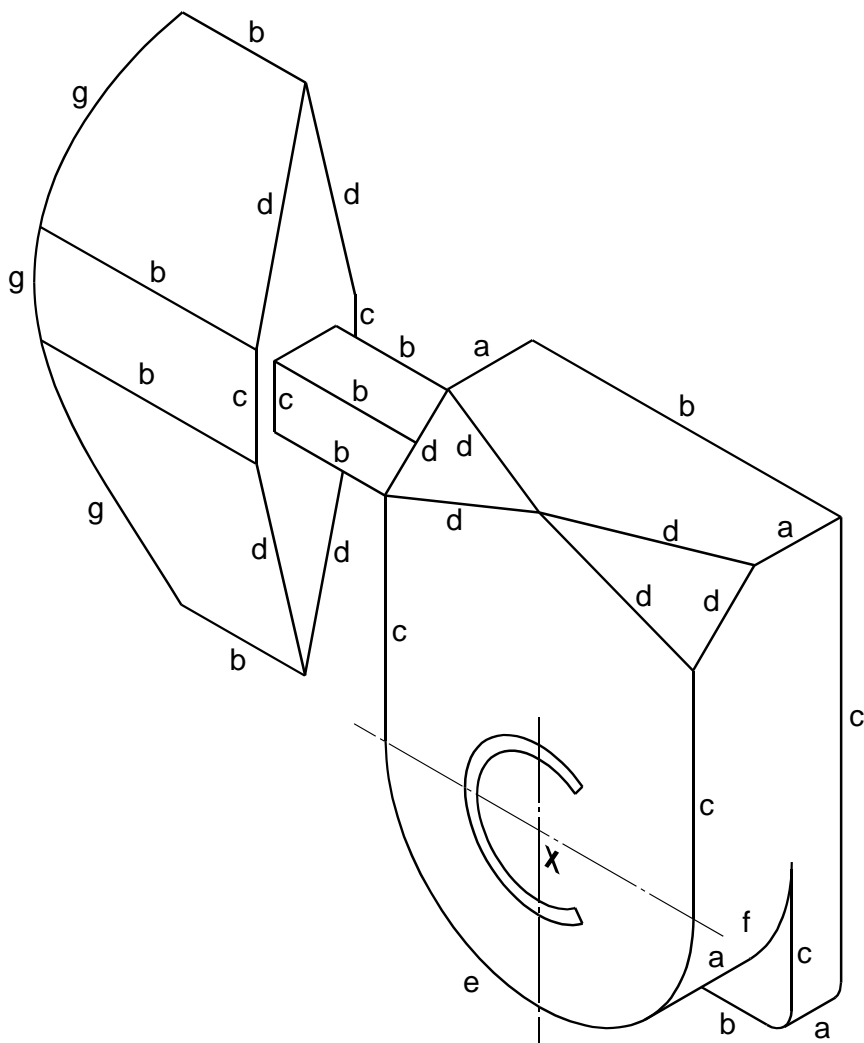
Question 11 – Shower Support



Question 12 – Isometric

		Marks
(a)	Lines to the right 5 (3 for 1) (5 for 2)	2
(b)	Lines to the left 9 (3 for 1) (6 for 2) (9 for 3)	3
(c)	Vertical lines 7 (3 for 1) (5 for 2)	2
(d)	Lines sloping 10 (4 for 1) (6 for 2) (10 for 3)	3
(e)	Part ellipse front 1 (Construction for 1) (3 critical points for 1) (4 intermediate points for 1)	3
(f)	Part ellipse back 1 3 points (start, intermediate and finish)	1
(g)	Curves (Thumb screw) 3 (construction for 1) (4 critical points for 1) (intermediate 3 for 1 and 5 for 2)	4
(h)	Fair curves for e, f and g Fair curve (2 for 1) (5 for 2)	2
	Total marks	20

Question 12 – Isometric

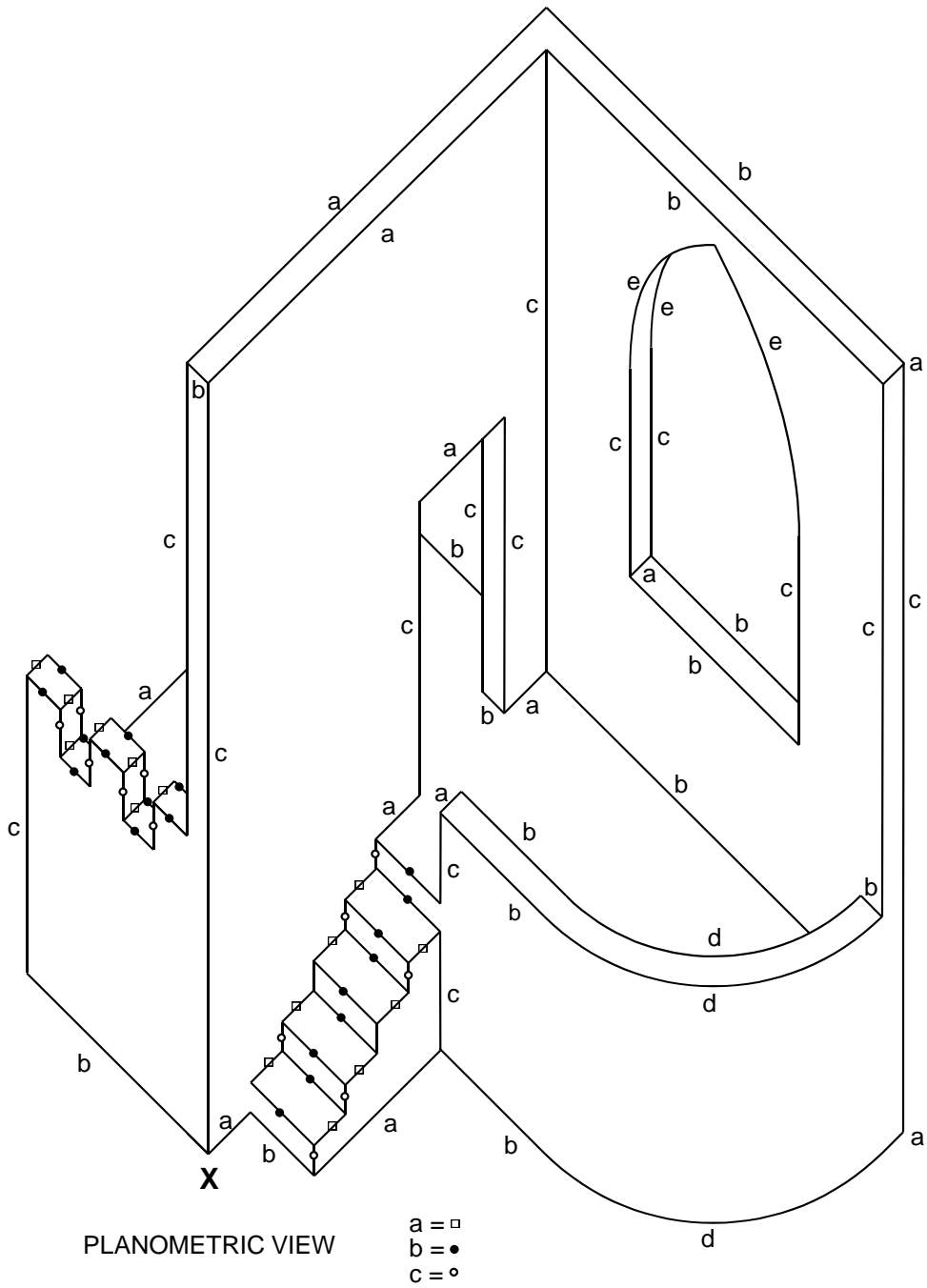


ISOMETRIC VIEW

Question 13 – Planometric

	Marks
(a) Lines to the right 26 (5 for 1) (10 for 2) (15 for 3) (20 for 4) (26 for 5)	5
(b) Lines to the left 30 (6 for 1) (12 for 2) (18 for 3) (24 for 4) (30 for 5)	5
(c) Vertical lines 26 (5 for 1) (10 for 2) (15 for 3) (20 for 4) (26 for 5)	5
(d) Arcs 3 (2 for 1) (3 for 2)	2
(e) Curves 3 (Start, finish and two intermediate points for each curve)	3
Total marks	20

Question 13 – Planometric



[END OF MARKING INSTRUCTIONS]