



2013 Graphic Communication

Higher

Finalised Marking Instructions

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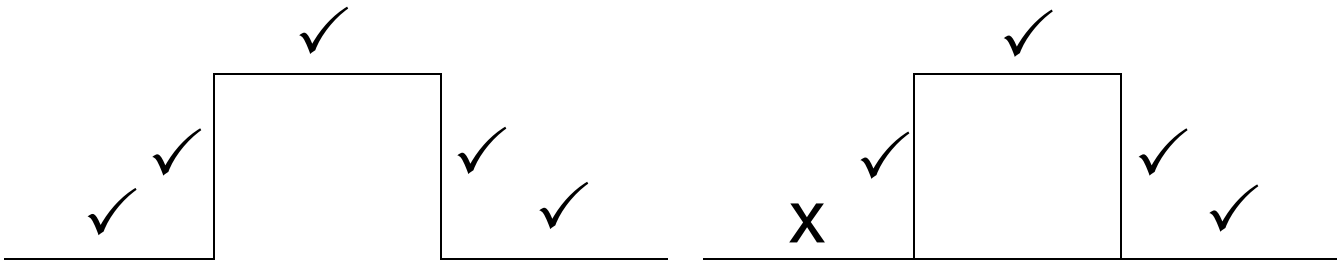
9Part One: General Marking Principles for Graphic Communication Higher

This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this Paper. These principles must be read in conjunction with the specific Marking Instructions for each question.

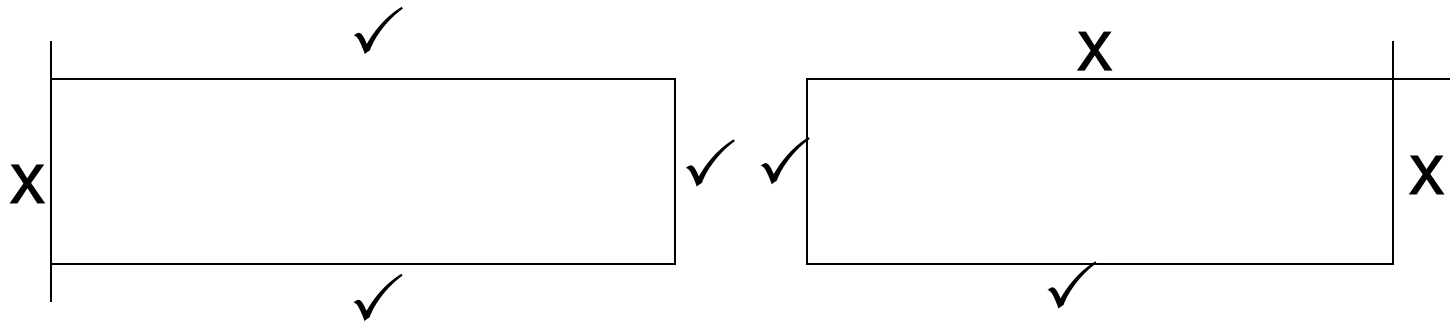
- (a)** Marks for each candidate response must always be assigned in line with these general marking principles and the specific Marking Instructions for the relevant question. If a specific candidate response does not seem to be covered by either the principles or detailed Marking Instructions, and you are uncertain how to assess it, you must seek guidance from your Team Leader/Principal Assessor.
- (b)** Marking should always be positive ie, marks should be awarded for what is correct and not deducted for errors or omissions.

GENERAL MARKING ADVICE: Graphic Communication Higher

The marking schemes are written to assist in determining the “minimal acceptable answer” rather than listing every possible correct and incorrect answer. The following notes are offered to support Markers in making judgements on candidates’ evidence, and apply to marking both end of unit assessments and course assessments.

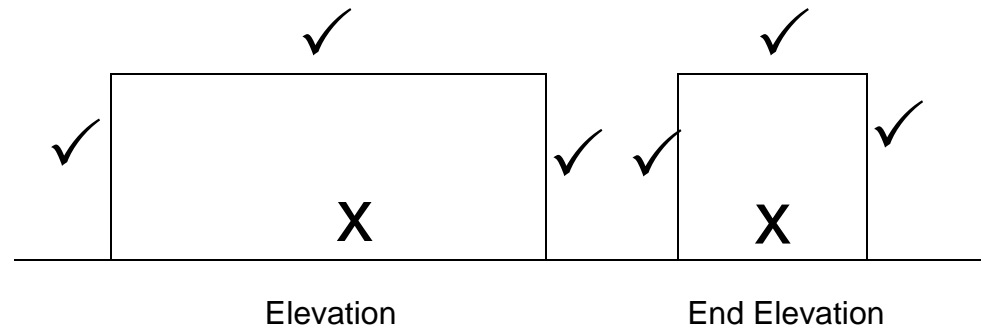
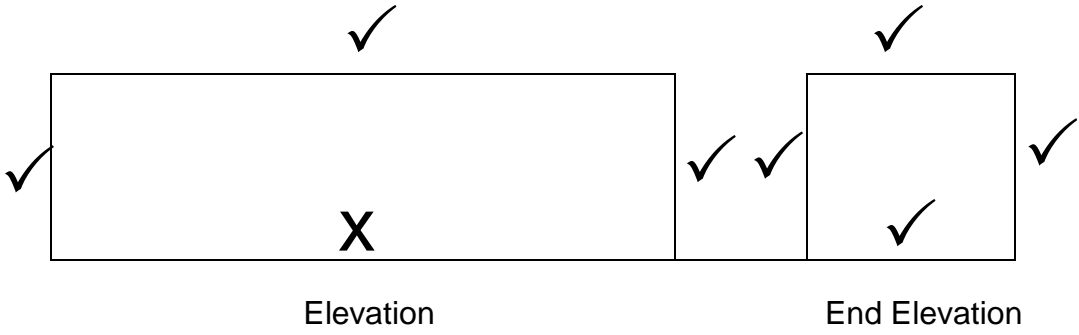


Penalty when a line is continued across a base



Penalty when a line is extended/continued incorrectly

Penalty when a line is incorrectly projected to another view



Elevation

End Elevation

Elevation

End Elevation

Part Two: Marking Instructions for each Question

Question	Expected Answer/s	Max Mark	Additional Guidance
1	<p><i>Preliminary</i></p> <p>Purpose: To convey ideas to clients etc quickly and clearly, to assist in the analysing and planning of the design process or similar. (1)</p> <p>Example: Dimensional sketches (2 or 2 ½D), investigative sketches, planning charts, graphs, thumbnails, market research. Any other reasonable answer. (1)</p> <p><i>Production</i></p> <p>Purpose: To provide precise information, to allow objects to be manufactured accurately. (1)</p> <p>Example: Orthographic, isometric, oblique, sectional, exploded, assembly, block, site, floor, flow, and gantt chart. Any other reasonable answer. (1)</p>	4	
		4	

Question		Expected Answer/s	Max Mark	Additional Guidance
2	a	<p>Maximum $400 - 29 \cdot 25 = 370 \cdot 05\text{mm}$ (1)</p> <p>Minimum $399 - 30 \cdot 05 = 368 \cdot 95\text{mm}$ (1)</p>	2	
	b	<p>Reasons:</p> <ul style="list-style-type: none"> • Cost, the more accurate an item needs to be, the higher the cost • Time to produce, the more accurate an item, the longer it will take • Affects the function of the product • Affects interchangeability of product <p>Any two from above or similar. 1 mark for each</p>	2	
			4	

Question			Expected Answer/s	Max Mark	Additional Guidance
3	a	i	North Symbol	1	
		ii	Plot Boundary	1	
		iii	Drainage	1	
		iv	Door	1	
		v	Radiator	1	
		vi	Window	1	
	b		Site plan scale 1:250 1:200 1:500 (1) Floor plan scale 1:50 1:100 (1)	2	
	c		Type of plan Block	1	
				9	

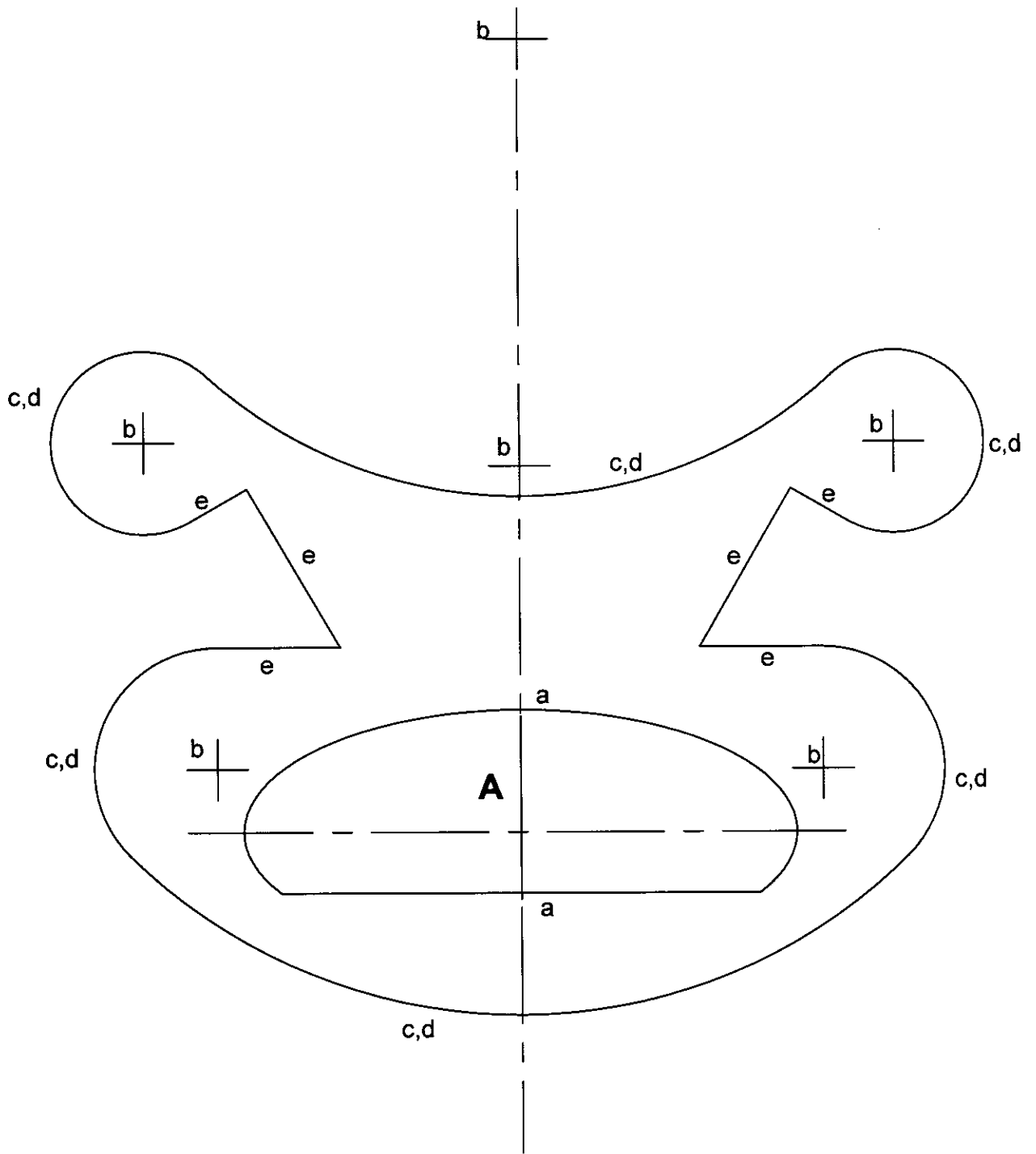
Question			Expected Answer/s	Max Mark	Additional Guidance
4	a	i	Headline	1	
		ii	Rule	1	
		iii	Graphic	1	
		iv	Caption	1	
		v	Gutter	1	
		vi	Margin	1	
	b		Reverse	1	
	c		Footer showing "issue 1" in bottom margin of the newsletter.	1	
	d		Portrait	1	
				9	

Question			Expected Answer/s	Max Mark	Additional Guidance
5	a	i	Revolved Section	1	
		ii	Half Section	1	
	b		Name Title of drawing Scale Date Tolerances Drawing number Material Surface finish Type of drawing Accept any four from the above list, 1 mark each	4	
				6	

Question		Expected Answer/s	Max Mark	Additional Guidance
6	a	Fillet (1)	6	
		Rotate (1)		
		Circle (1)		
		Line (1)		
		Polar Array (1)		
		Hatch (1)		
	b	<p>Inkjet: Cheaper set up cost, smaller than laser printer, takes a larger range printing mediums. (1)</p> <p>Laser: Faster, sharper text, image, greater buffer memory, more cost effective for large print runs, usually quieter. (1)</p> <p>1 mark for any acceptable answer for each printer</p>	2	
			8	

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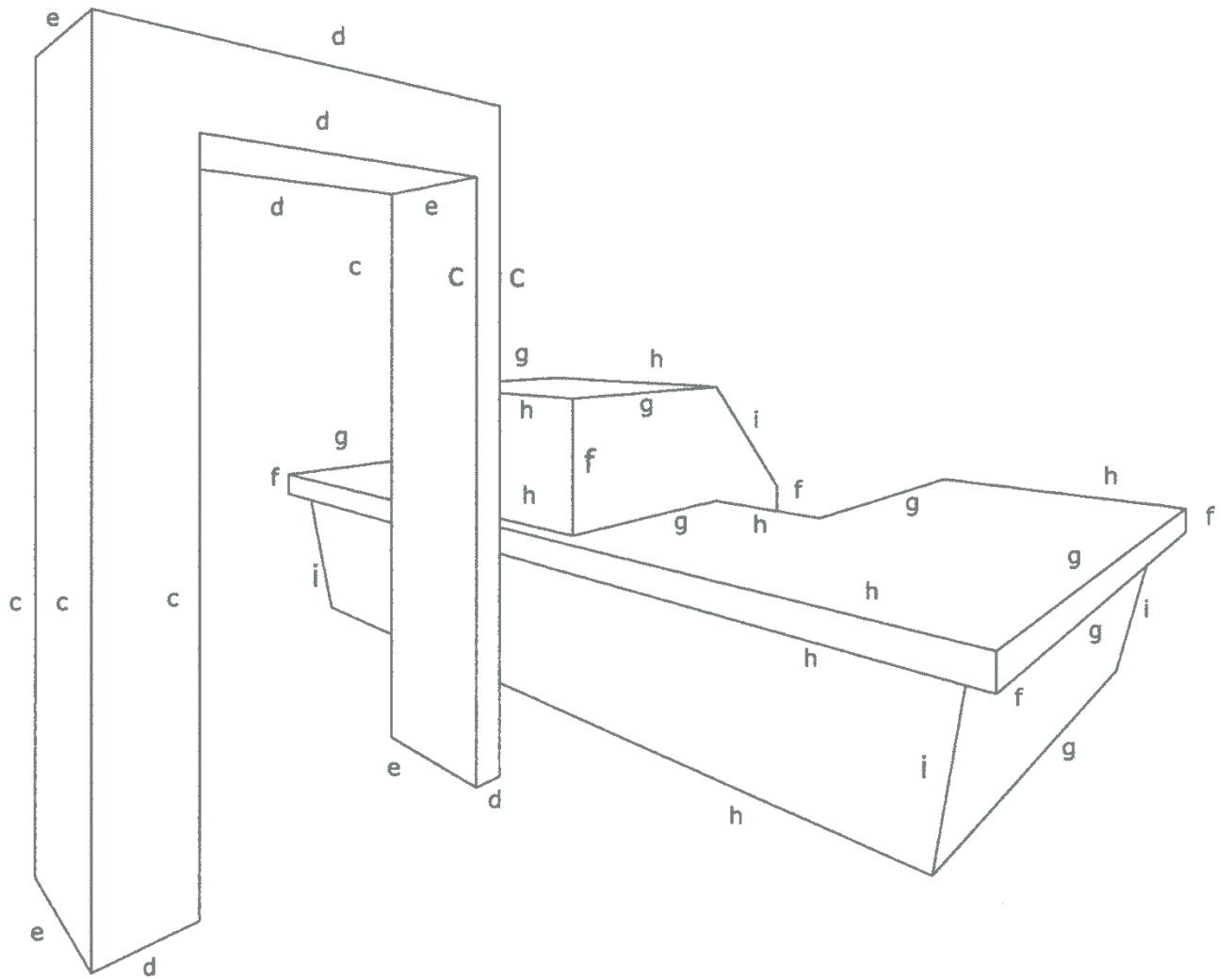
Question 7 - Tangency



Question 7 - Tangency

Question	Expected Answer/s	Max Mark	Additional Guidance
Part Ellipse			
8	a	3 critical points for 1 Min 4 intermediate and line in correct position for 1	2
Tangency			
	b	Centres, clearly shown and located 6 (3 for 1), (6 for 2)	2
	c	Arcs correct radii 6 (3 for 1), (6 for 2)	2
	d	Smooth arcs, no tails, firm lines 6 (3 for 1), (6 for 2)	2
	e	Lines (4 tangent and 2 sloping) 6 (3 for 1), (6 for 2)	2
		Total marks	10

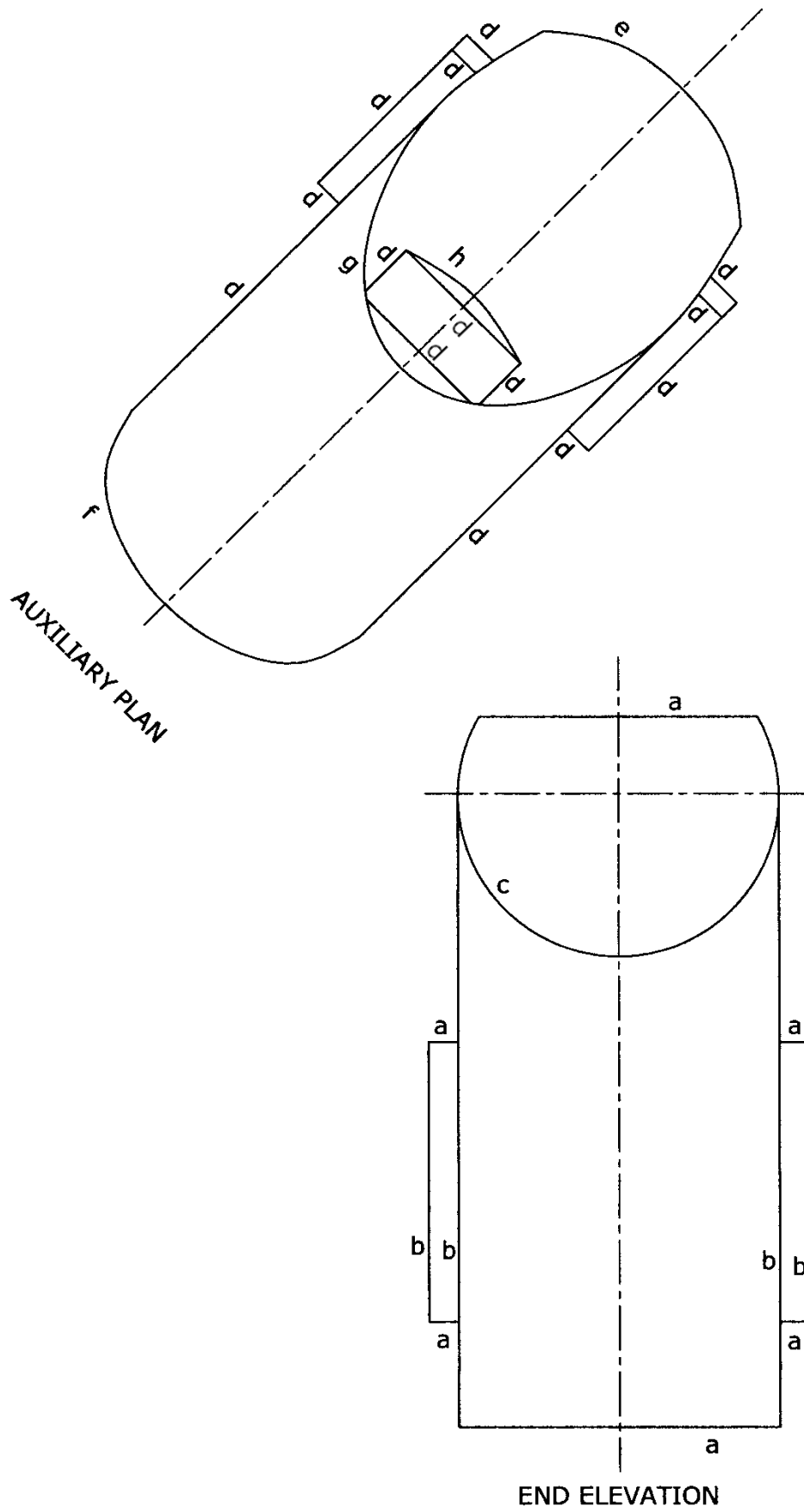
Question 8



Question 8 – Measure Perspective

Question	Expected Answer/s	Max Mark	Additional Guidance
Measure Perspective			
8	a	VP1 and VP2 vanishing points to left and right	1
	b	Height line, any one correctly positioned and used	1
Body Scanner			
	c	Vertical lines 6 (2 for 1), (4 for 2), (6 for 3)	3
	d	Lines to the right VP 5 (2 for 1), (5 for 2)	2
	e	Lines to the left VP 4 (2 for 1), (4 for 2)	2
Bag Scanner			
	f	Vertical lines 5 (2 for 1), (5 for 2)	2
	g	Lines to the right VP 8 (2 for 1), (4 for 2), (8 for 3)	3
	h	Lines to the left VP 8 (2 for 1), (4 for 2), (8 for 3)	3
	i	Sloping lines 4 (1 for 1), (2 for 2), (4 for 3)	3
		Total marks	20

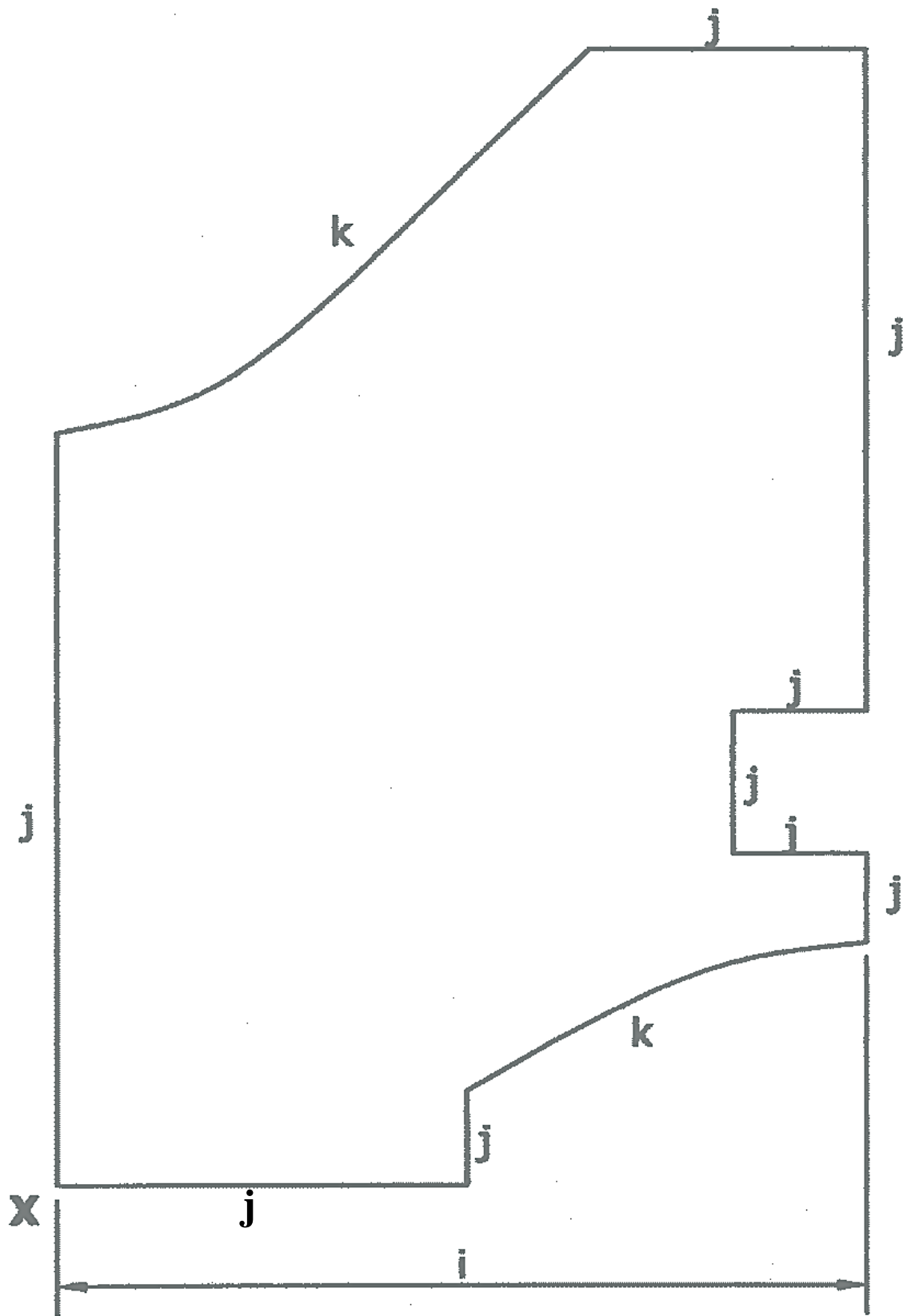
Question 9



Question 9 – Wall Light and Shade

Question	Expected Answer/s	Max Mark	Additional Guidance
End Elevation			
9	a & b	Solid lines, vertical 4, horizontal 6 (5 for 1), (10 for 2)	2
	c	Part circle	1
Auxiliary Plan			
	d	Solid lines 45° to the right and left 14 (4 for 1), (8 for 2), (14 for 3)	3
	e	Construction of top part ellipse 3 critical, 2 intermediate (5 for 1)	1
	f	Construction of bottom part ellipse 3 critical, 4 intermediate (3 for 1), (7 for 2)	2
	g	Construction of cut curve 5 critical, 4 intermediate (5 for 1), (9 for 2)	2
	h	Construction of internal curve 3 critical (3 for 1)	1

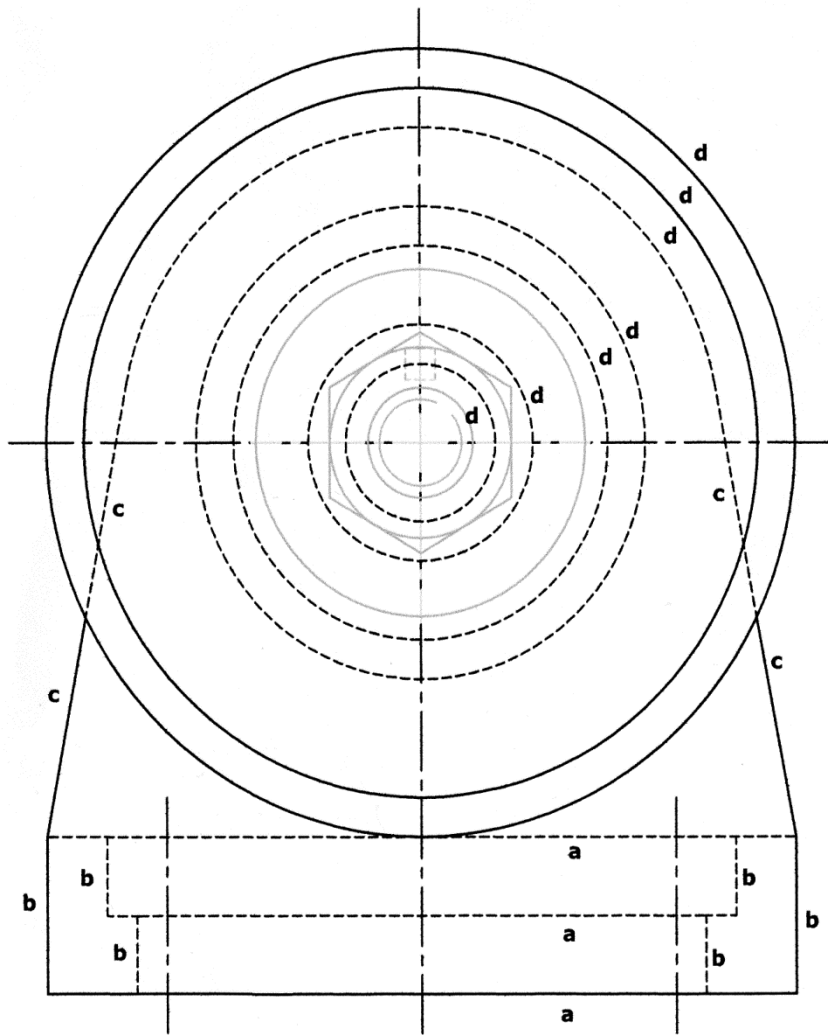
Question 9 (cont) – Wall Light and Shade



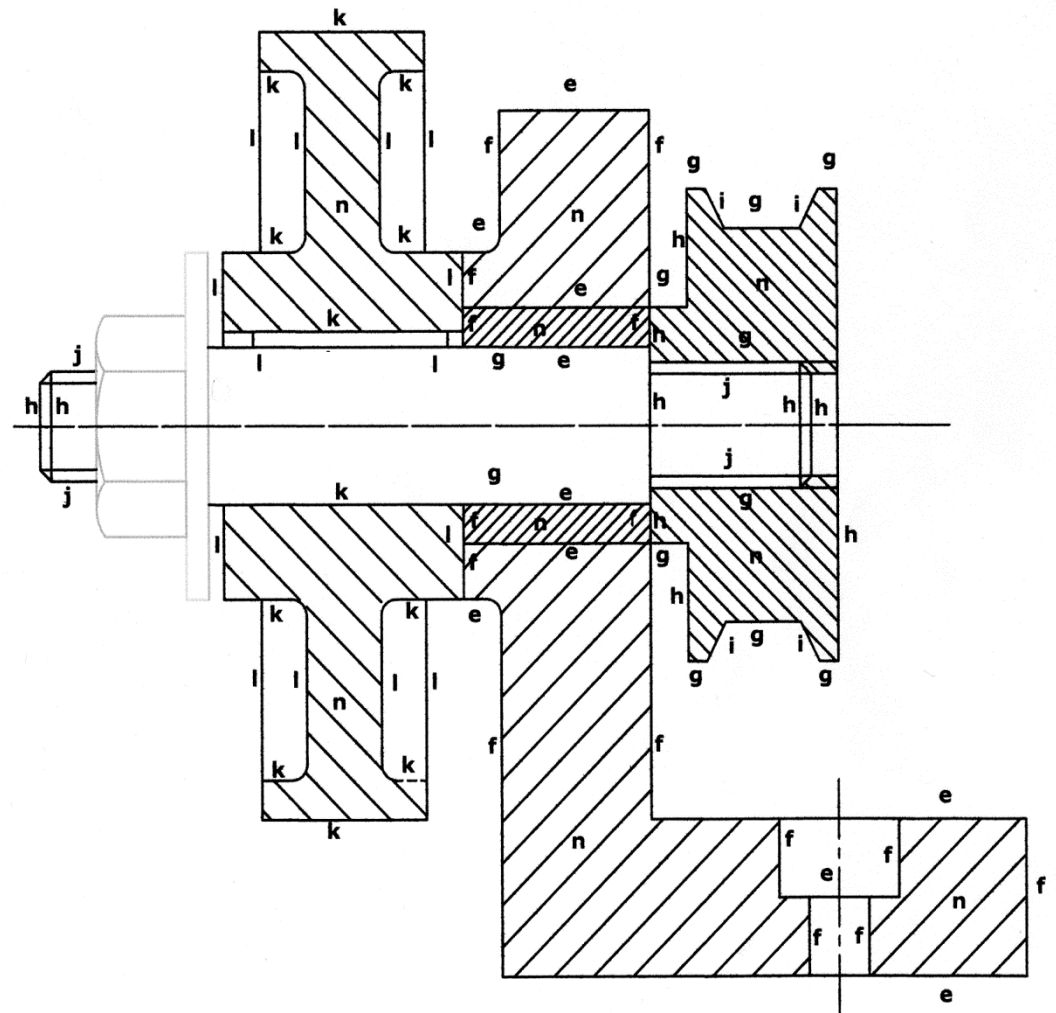
Question 9 (cont) – Wall Light and Shade

Question		Expected Answer/s	Max Mark	Additional Guidance	
Symmetrical half development					
9	i		Correct length (± 3 mm) for 1 mark	1	
	j		Solid lines horizontal and vertical 9 (3 for 1), (6 for 2), (9 for 3)	3	
	k		Top and bottom curves 9 points (3 for 1), (5 for 2), (9 for 3)	3	
	l		Fair curve at e, f, g, h and k (any 3 for 1)	1	
			Total marks	20	

Question 10



END ELEVATION



SECTIONAL ELEVATION A-A

Question 10 – Pulley Belt Mechanism

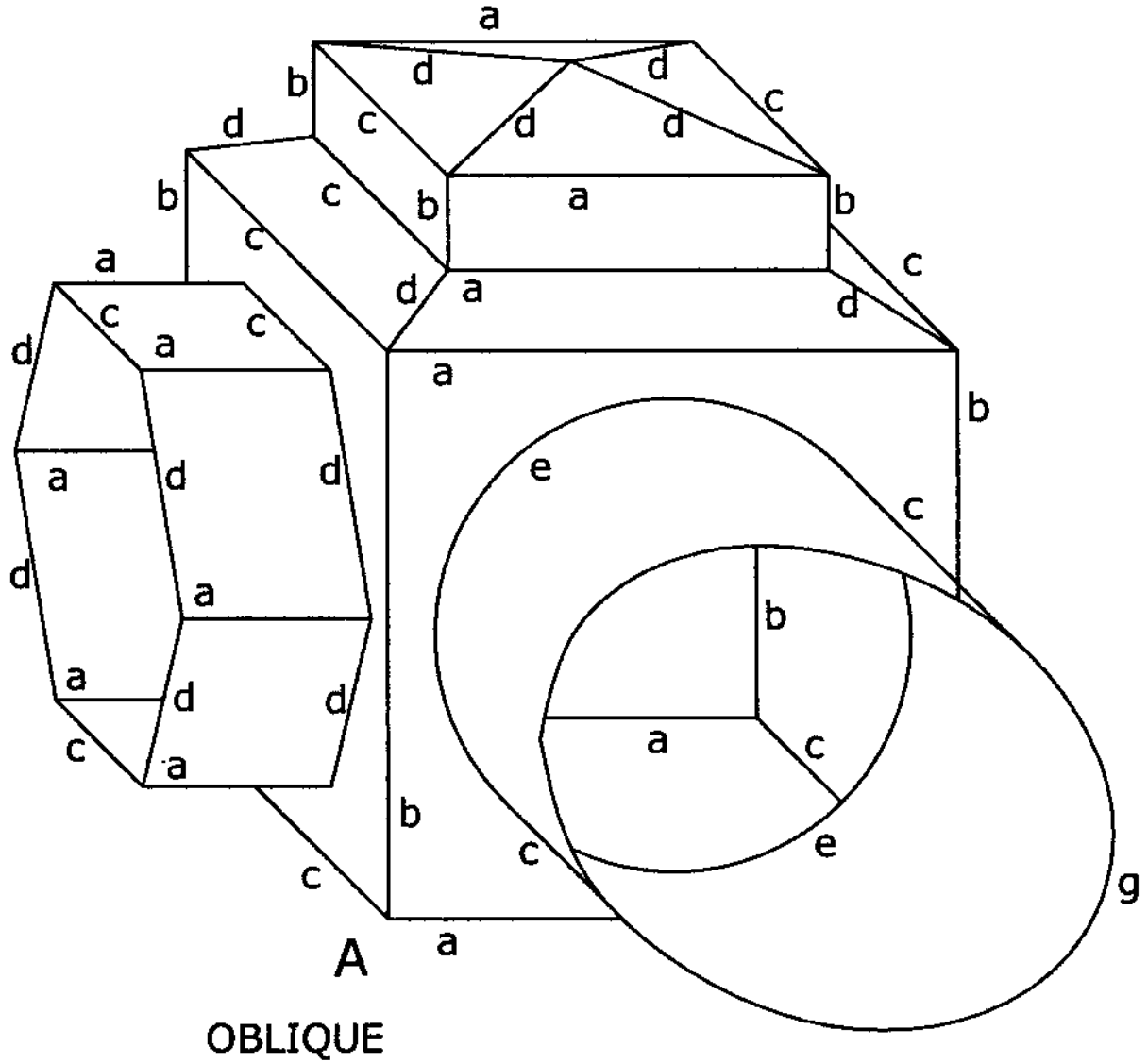
Question	Expected Answer/s	Max Mark	Additional Guidance
End Elevation			
a & b	Horizontal and vertical lines, full and hidden 9, (3 for 1), (6 for 2), (9 for 3)	3	
c	Sloping lines, full and hidden 4 (2 for 1), (4 for 2)	2	
d	Circles, full, hidden and part hidden 7 (2 for 1), (4 for 2), (7 for 3)	3	
Bracket and Bush			
e	Horizontal lines 10 (4 for 1), 10 for 2)	2	
f	Vertical lines 15 (5 for 1), (10 for 2), (15 for 3)	3	
Pulley and axel			
g	Horizontal lines 12 (4 for 1), (8 for 2), (12 for 3)	3	
h	Vertical lines 10 (5 for 1), (10 for 2)	2	
i	Sloping lines 4	1	
j	Thread detail 4	1	

Question 10 (cont) – Pulley Belt Mechanism

Question	Expected Answer/s	Max Mark	Additional Guidance
Belt Drive and Key			
k	Horizontal lines 12 (4 for 1), (8 for 2), (12 for 3)	3	
l	Vertical lines 14 (4 for 1), (8 for 2), (14 for 3)	3	
m	Filletts 8 any 4 for 1 mark	1	
n	Hatching, 9 areas hatched to BS (opposite direction no herring bone) (3 for 1), (6 for 2), (9 for 3)	3	
	Total marks	30	

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Question 11 – Play Tunnel



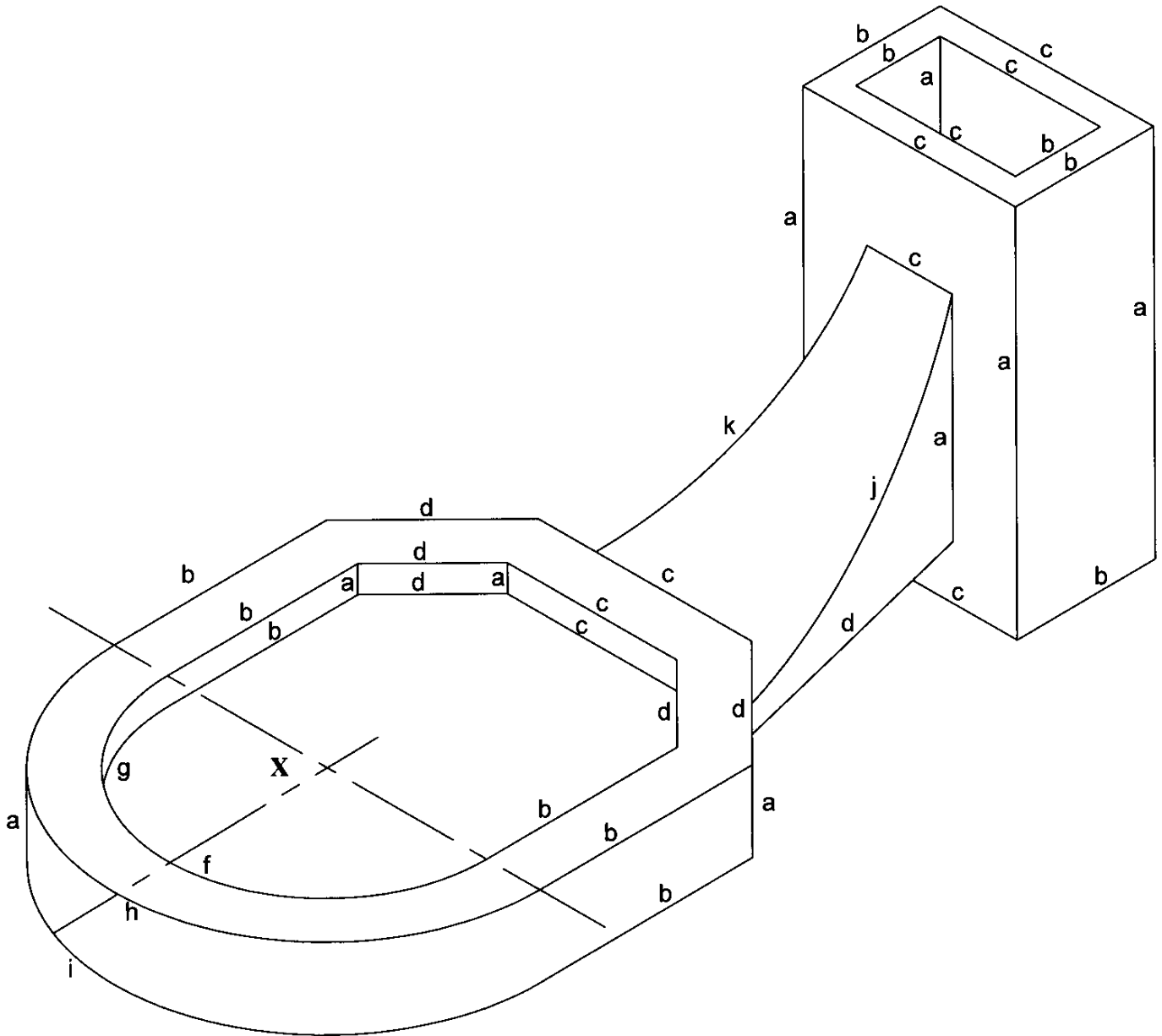
Question 11 – Play Tunnel

Question	Expected Answer/s	Max Mark	Additional Guidance
Oblique View			
a	Horizontal lines 12 (2 for 1), (4 for 2), (8 for 3), (12 for 4)	4	
b	Vertical lines 7 (3 for 1), (7 for 2)	2	
c	45° lines 12 (2 for 1), (4 for 2), (8 for 3), (12 for 4)	4	
d	Sloping lines 13 (2 for 1), (4 for 2), (8 for 3), (13 for 4)	4	
e	Part circle inside and outside 2 (2 for 1)	1	
f	Construction for cut out cylinder on elevation and end elevation	1	
g	Ellipse 12 points (4 for 1), (8 for 2), (12 for 3)	3	
h	Fair curve	1	
	Total marks	20	

Note: Isometric: Count verticals at (b), sloping at (d) and fair curves at (h)

Cavalier Projection: Mark to scheme. Do not mark 45° lines (c) or points at (g). Give mark for fair curve if appropriate

Question 12 - Isometric



Question 12 – Isometric

Question		Expected Answer/s	Max Mark	Additional Guidance
12	a	Vertical lines 9 (5 for 1), (9 for 2)	2	
	b	Lines to the right 11 (5 for 1), (9 for 2), (11 for 3)	3	
	c	Lines to the left 9 (5 for 1), (9 for 2)	2	
	d	Sloping lines 6 (5 for 1)	1	
	e	Construction on plan for part circles; inner and outer	1	
	f	Part circle (3 critical points for 1) (4 intermediate points for 1)	2	
	g	Part circle inside 3 points (start, intermediate and finish)	1	
	h	Part circle (3 critical points for 1) (4 intermediate points for 1)	2	
	i	Part circle lower Min 4 points including start, intermediate and finish	1	
	j	Part curve (Start and finish for 1) (2 intermediate points for 1)	2	
	k	Part curve back (Start and finish for 1) (2 intermediate points for 1)	2	
	l	Fair curves for f, g, h, i, j and k Any 3 fair curves for 1	1	
Total marks			20	

[END OF MARKING INSTRUCTIONS]