



2008 Graphic Communication

Higher

Finalised Marking Instructions

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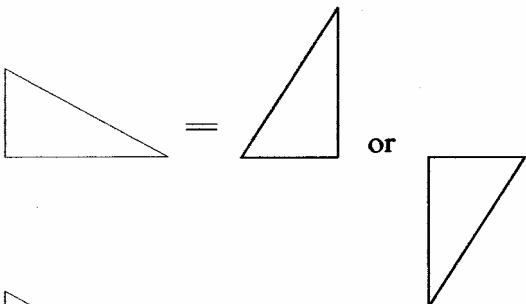
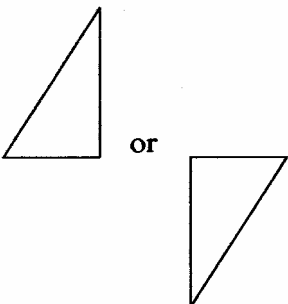
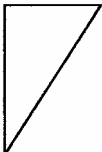
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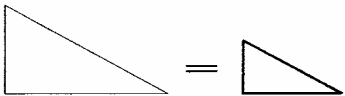
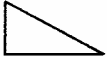
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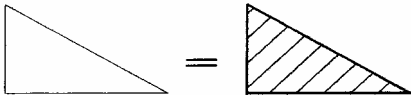
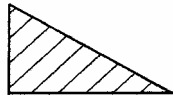
Question 1

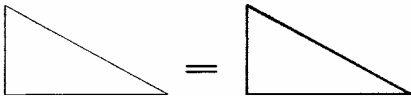
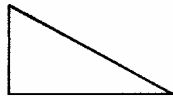
Marks



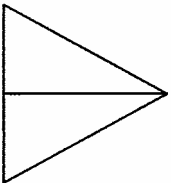
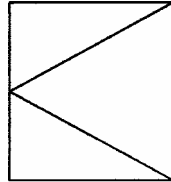
(a)

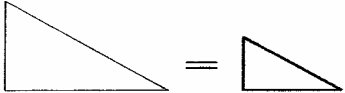
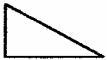
(i) Rotate (90°)  =  or 

(ii) Scale (down)  = 

(iii) Hatch  = 

(iv) Copy  = 

(v) Mirror  =  or  or 

(vi) Zoom (out)  = 

Six answers, one mark for each

6

Notes:

(b) Benefits:

- saves (time) redrawing commonly used parts
- standardisation, quality control eg to British Standards.

Two answers, one mark for each

2

Notes:

Question 2

Marks

(a) (i) 1:50; 1:100 (both answers required) **1**

(ii) The size of the paper/printer; the size of the house; the degree of detail required

Any two answers – 1 mark for each **2**

(b) A shower tray

B wash basin

C water closet; wc

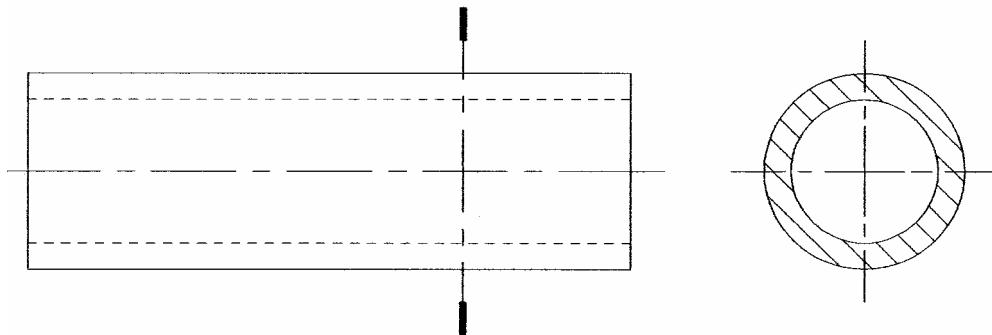
D lamp

E switch

F socket

Two for 1, four for 2, six for 3 **3**

(c)



chain thin – 3 lines for 1 mark

dashed thin – 2 lines for 1 mark

chain thin, thick at ends – 1 line for 1 mark

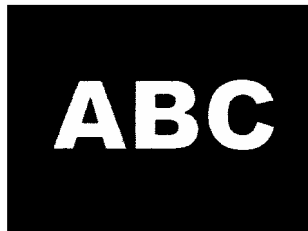
3

Notes:

Question 3

Marks

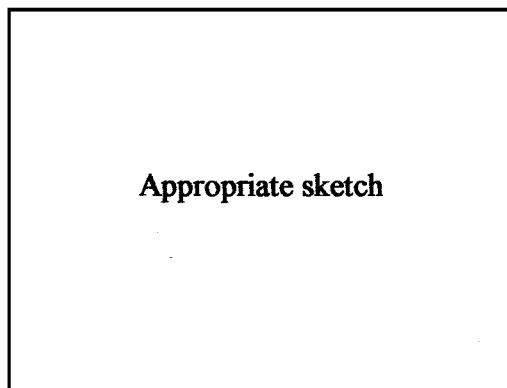
(a) (i)



1 mark for reverse
1 mark for landscape

2

(ii)



1

(b) *Footer* – a line of text/or page number (folio) placed at the bottom of the page (which is repeated throughout the main body of the document)

Column rule – lines (rules) inserted between columns of text

Gutter – the spaces between columns on a page

Box – graphic/text which is ruled off on all four sides/enclosed within a box

4 answers – 1 mark each (bracketed information not essential)

4

(c) Thumbnail sketches/thumbnails

1

Notes:

Question 4

Marks

(a) (i) *Dimensional tolerancing* – the practice of applying acceptable/allowable upper or lower limits from the nominal sizes/dimensions.

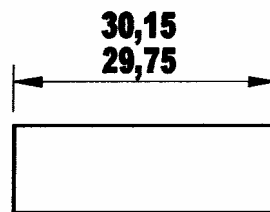
1

(ii) Reason 1 – they may affect the function of the product
Reason 2 – they may affect interchangeability of products

2 answers, 1 mark each

2

(iii)



1

Notes:

Question 5

Marks

| | |
|-------------------------------|--|
| <i>Consumer industry:</i> | planning diagrams (charts) (cutting patterns, developments) assembly proofs (camera ready), planometric |
| <i>Engineering industry:</i> | planning diagrams (charts) (component, assembly, arrangement, installation) orthographic drawings jig and tool drawings diagrams (circuit, wiring, electrical, pneumatic) parts lists, drawing lists |
| <i>Construction industry:</i> | planning diagrams (charts) (building and structural) block, site and floor plans diagrams (plumbing, drainage, electrical, heating) planning authority/building control drawings planometric |

Any 1 answer from each section but no repeats

3

Notes:

Question 6

Marks

(a) To show additional information which otherwise would not be available. **1**

(b) Any acceptable sketch showing a cross section of an elongated form or object rotated towards the plane of projection to show its shape or contour with no elevation lines running across.

For any acceptable sketch, fully correct, of quality; 2 marks

For any acceptable sketch to show the concept, with a minor flaw or lesser quality;

1 mark

2

(c) Ribs, webs, spokes, voids, key, keyway, thin material, washer pins, rivets, bearings, stud

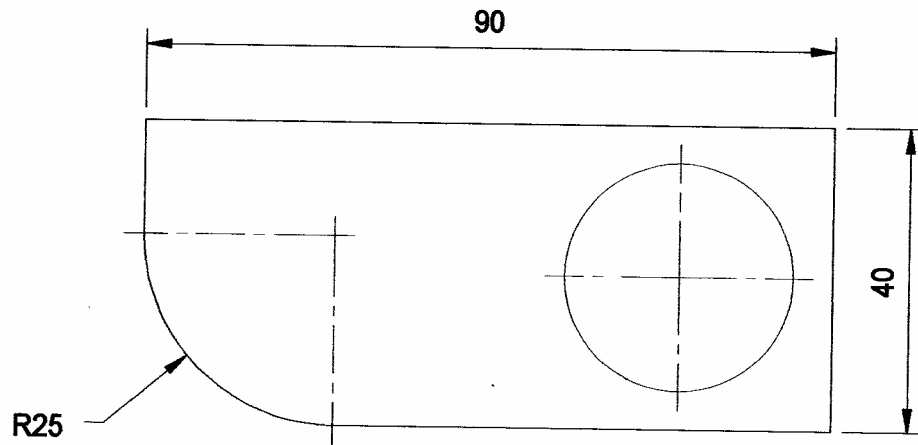
Any 2 answers for 1 mark each

2

Notes:

Question 7

Marks



All 3 correct identification of locations for 1 (lower and left overall dimensions acceptable).

Linear dimensions correct to BS for 1 – position of dimension, projection line gap, solid arrows.

Radius dimension correct to BS for 1 – as shown or from centre to circumference with size aligned.

3

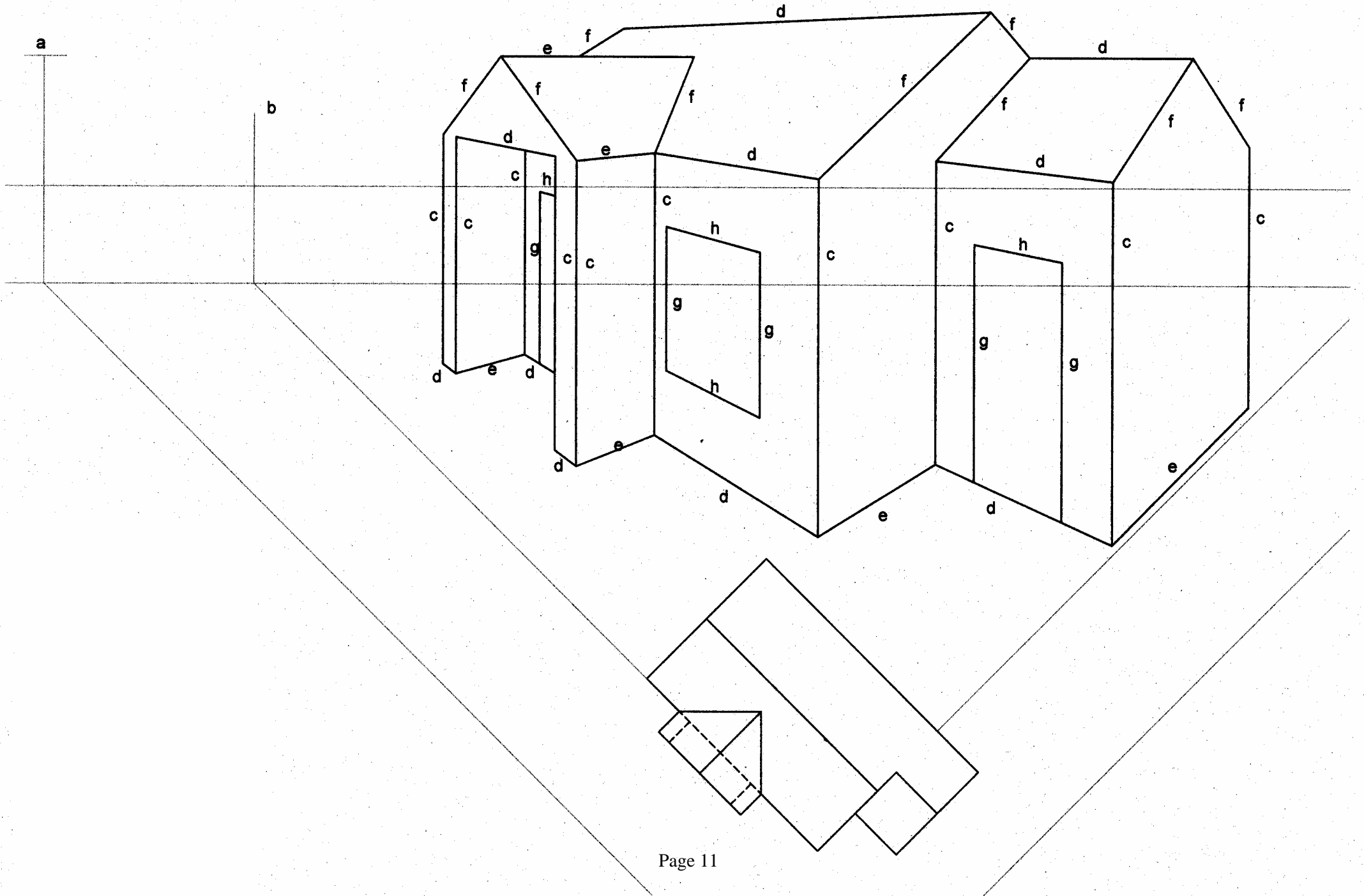
Notes:

Question 8 – Measured Perspective V1

| | Marks |
|---|--------------|
| (a) VP1 and VP2 vanishing points to left and right | 1 |
| (b) Height line: any 1 correctly positioned and used | 1 |
| (c) 10 vertical lines (location) (2 for 1, 4 for 2, 7 for 3, 9-10 for 4) | 4 |
| (d) 10 lines to left VP (2 for 1, 4 for 2, 7 for 3, 9-10 for 4) | 4 |
| (e) 6 lines to right VP (2 for 1, 4 for 2, 5-6 for 3) | 3 |
| (f) 9 sloping lines (2 for 1, 4 for 2, 6 for 3, 8-9 for 4) | 4 |
| (g) Doors and window: 5 vertical lines (location) (2 for 1, 4-5 for 2) | 2 |
| (h) Doors and window: 4 to VP (4 for 1) | 1 |
| Total marks | 20 |

Notes:

Question 8 – Measured Perspective V1



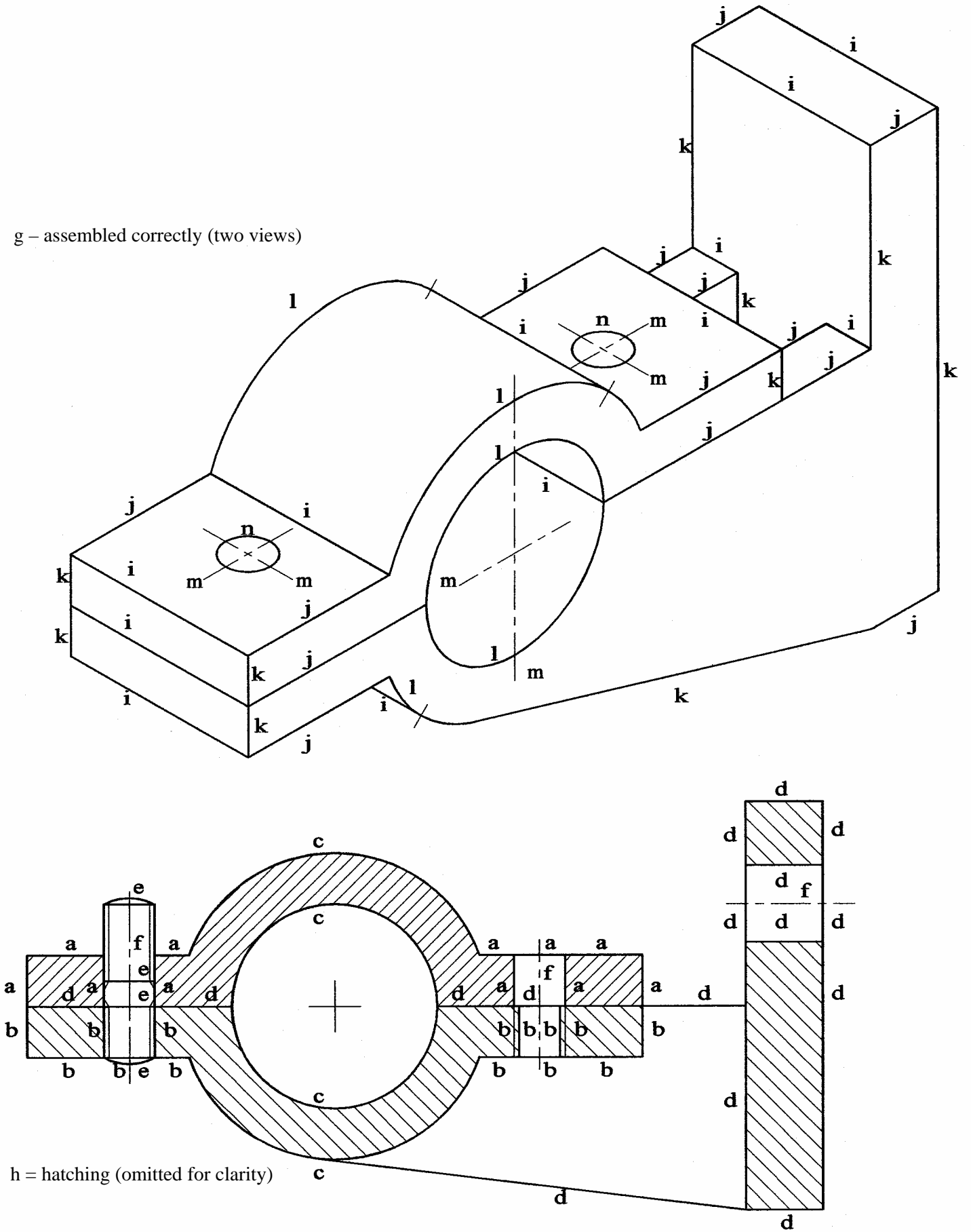
Question 9 – Support Bracket

| | Marks |
|---|--------------|
| Sectional Elevation A-A | |
| (a) Lines: 5h, 6v (6 for 1, 10/11 for 2) | 2 |
| (b) Lines: 6h, 8v (6 for 1, 10 for 2, 13/14 for 3) | 3 |
| (c) Arcs: (2 for 1, 4 for 2) | 2 |
| (d) Lines: 9h, 6v, 1 slope (6 for 1, 12 for 2, 15/16 for 3) | 3 |
| (e) Stud: location, 7/8 lines, 2 arcs (or 45° edge and line) for 1 mark position is essential | 1 |
| (f) Centre lines: 3 (any 2 correct to BS for 1 mark) | 1 |
| (g) Assembly: Two parts correct for 1 mark | 1 |
| (h) Hatching: BS aspects (angle, direction, open threads, against stud 100% correct for 1 mark) 8 areas (4 for 1, 8 for 2) | 3 |
| Isometric | |
| (i) Lines 30° to left: (6 for 1, 11/12 for 2) | 2 |
| (j) Lines 30° to right: (6 for 1, 10 for 2, 13/14 for 3) | 3 |
| (k) Lines vertical and 1 sloping: (6 for 1, 9/10 for 2) | 2 |
| (l) Arcs: 5 by any construction and fair curve or template only (1 mark for each) deduct 1 mark for poor curves | 5 |
| (m) Centre lines: 6 available (any 4 for 1) | 1 |
| (n) Holes sketched: (2 for 1) location required | 1 |
| Total marks | 30 |

Notes:

Question 9 – Support Bracket

g – assembled correctly (two views)

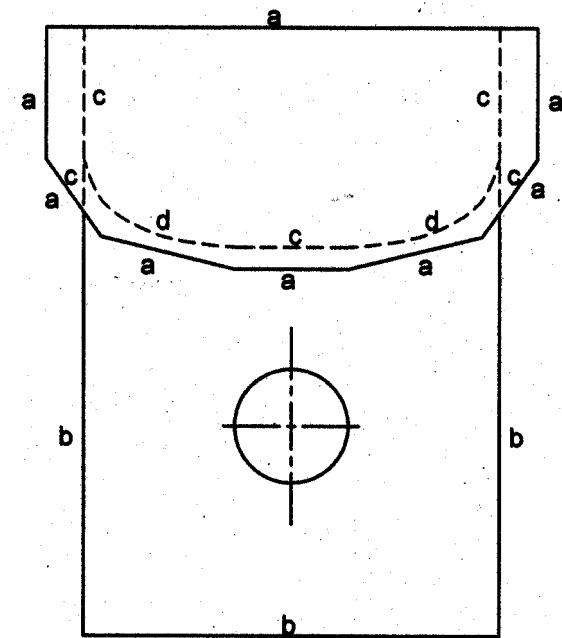
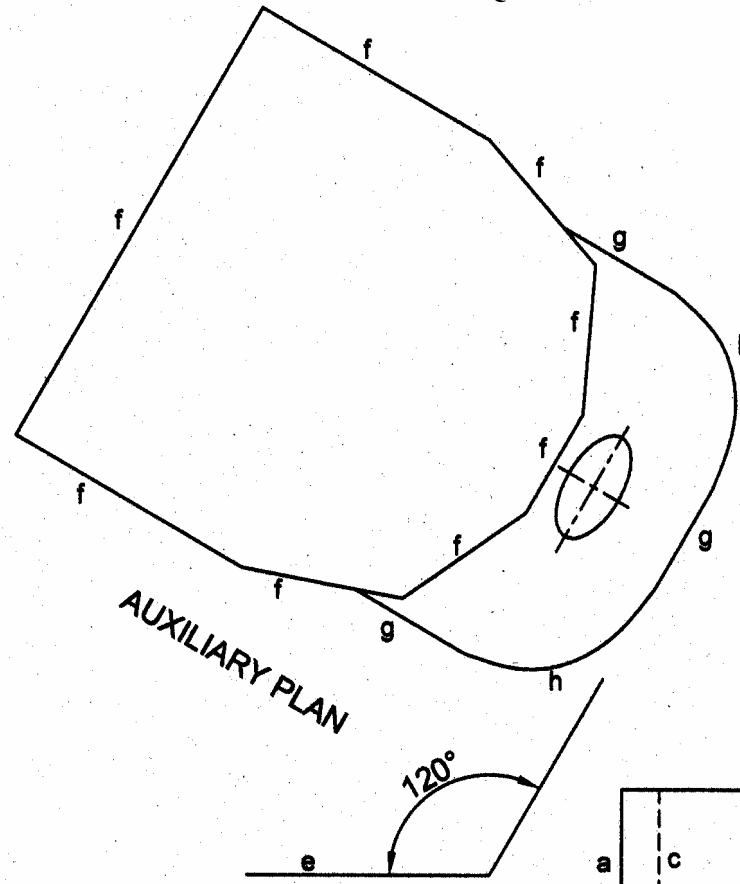
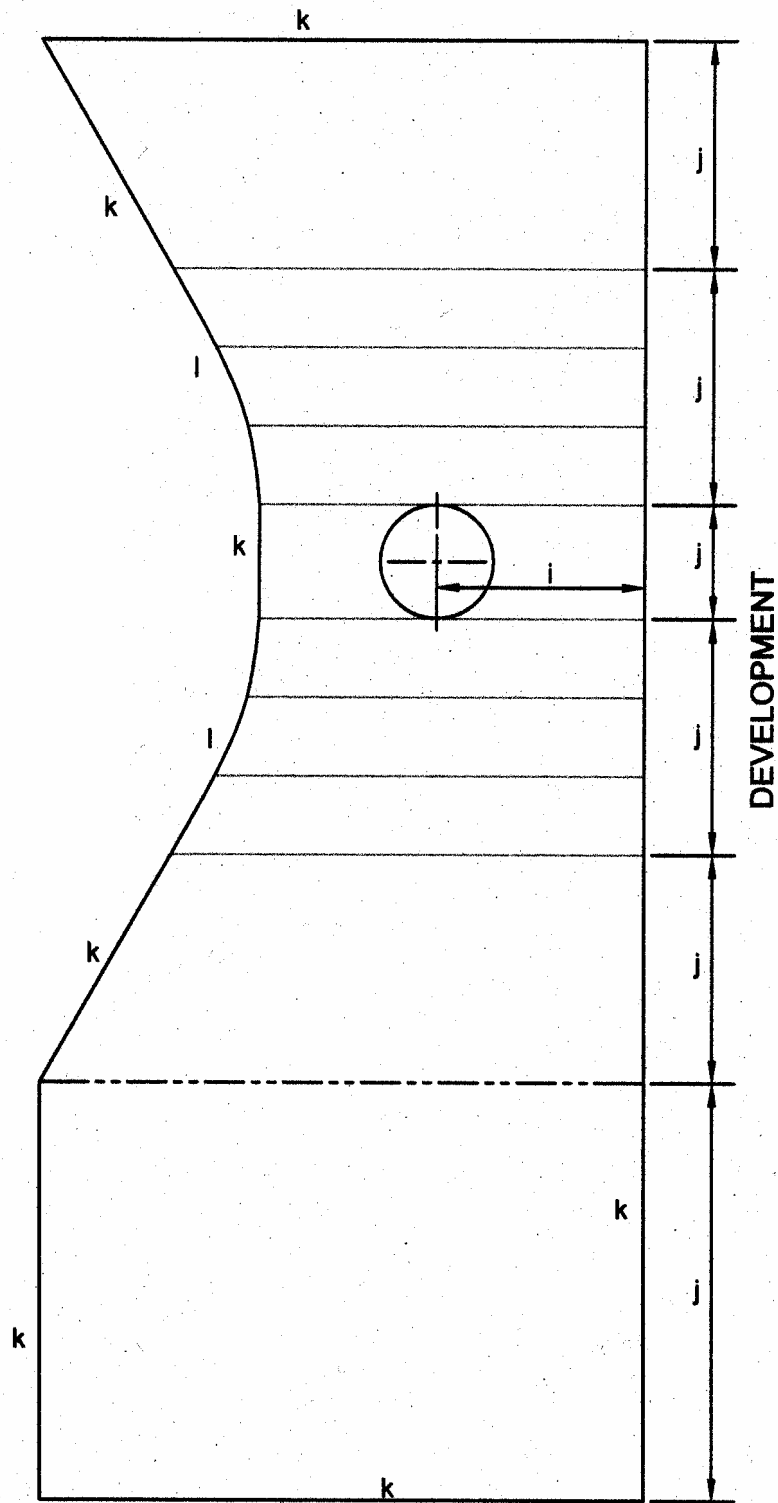


h = hatching (omitted for clarity)

Question 10 – Bird Box

| | Marks |
|---|--------------|
| End Elevation | |
| (a) Roof, 2 horizontal, 2 vertical, 4 sloping (2 for 1, 5 for 2, 7-8 for 3) | 3 |
| (b) Body, solid lines, 1 horizontal, 2 vertical (3 for 1) | 1 |
| (c) Body, hidden lines, 4 vertical, 1 horizontal (2 for 1, 5 for 2) | 2 |
| (d) Hidden curves, 2 starts, 2 finish, 4 intermediate points (2 for 1, 5 for 2, 8 for 3); 2 fair curves for 1 | 4 |
| Auxiliary | |
| (e) Correct projection: 60° to show true shape of roof | 1 |
| (f) Roof, lines, 2 @ 60°, 2 @ 30°, 4 sloping (2 for 1, 5 for 2, 7-8 for 3) | 3 |
| (g) Body, lines, 1 @ 60°, 2 @ 30° (3 for 1) | 1 |
| (h) Curves, 2 starts, 2 finish, 4 intermediate points (2 for 1, 5 for 2, 8 for 3); 2 fair curves for 1 | 4 |
| Development | |
| (i) Position of development from given start. | 1 |
| (j) 6 lengths; ± 6 overall (2 for 1, 4 for 2, 6 for 3) | 3 |
| (k) 7 solid lines, 1 double chain line for 3 (2 for 1, 5 for 2, 8 for 3) | 3 |
| (l) Curves, 2 starts, 2 finish, 4 intermediate points (heights) (2 for 1, 5 for 2, 8 for 3); 2 fair curves for 1 | 4 |
| Total marks | 30 |

Notes:



Question 11 – Scoop

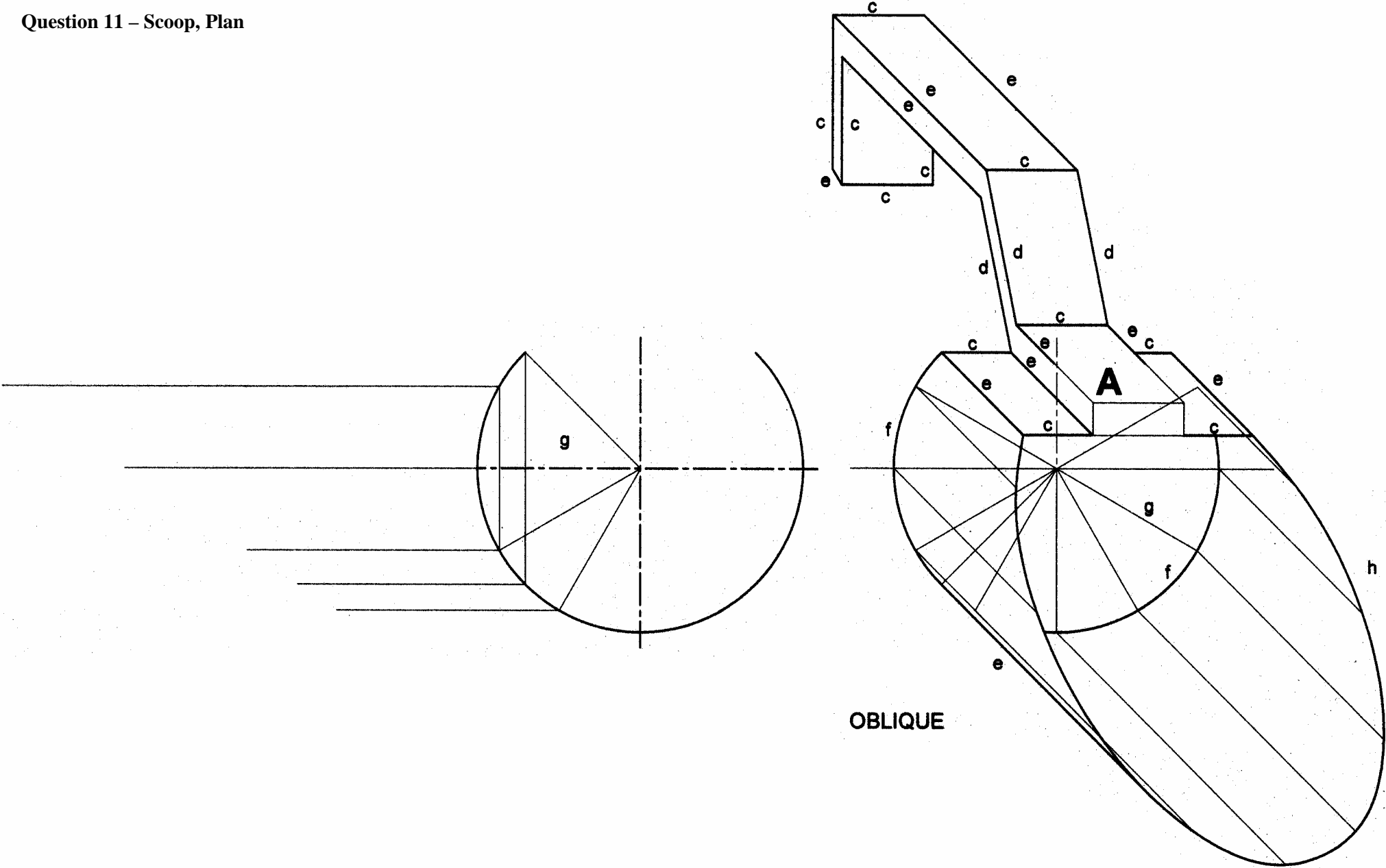
| | Marks |
|--|--------------|
| Plan | |
| (a) Lines, 6 vertical, 6 horizontal, 3 hidden (3 for 1, 7 for 2, 11 for 3, 14-15 for 4) | 4 |
| (b) 5 critical points and 6 intermediate (5 for 1, 10 for 2); fair curve for 1 | 3 |
| Oblique | |
| (c) Lines, 3 vertical, 8 horizontal (3 for 1, 7 for 2, 10-11 for 3) | 3 |
| (d) Lines, 3 sloping for 1 mark | 1 |
| (e) 45° lines, 10 (3 for 1, 6 for 2, 9-10 for 3) | 3 |
| (f) 2 arcs for 1 mark each | 1 |
| (g) 45° construction on elevation and oblique | 1 |
| (h) Curve, 12 points (4 for 1, 8 for 2, 11-12 for 3); fair curve for 1 | 4 |
| Total marks | 20 |

Notes:

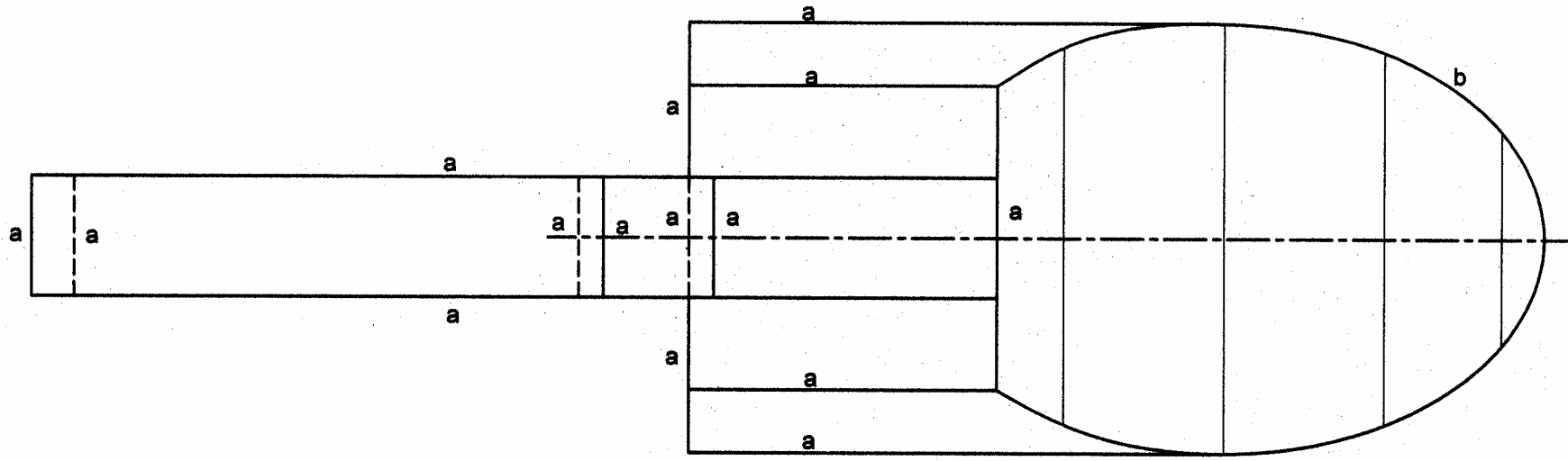
Isometric view drawn: count verticals at (c), sloping at (d) only and fair curve at (h)

Cavalier projection: mark to scheme, do not mark 45° lines (e) or points at (h) give mark for fair curve if appropriate

Question 11 – Scoop, Plan



Question 11 – Scoop, Plan



PLAN

Question 12 – Plane

Marks

Plan

- (a) Lines, horizontal 8, (4 for 1, 7-8 for 2) **2**
- (b) Lines, vertical 16, (4 for 1, 8 for 2, 12 for 3, 15-16 for 4) **4**
- (c) 2 full circles for 1 mark, 1 arc for 1 mark **2**
- (d) Lines, 4 minimum 3 for 1 mark **1**

Sectional End Elevation

Cover

- (e) Lines, horizontal and vertical 13, (4 for 1, 8 for 2, 12-13 for 3) **3**

Base

- (f) Lines, horizontal and vertical 13, (4 for 1, 8 for 2, 12-13 for 3) **3**
- (g) Thread detail, 8 lines, (4 for 1, 7-8 for 2) **2**

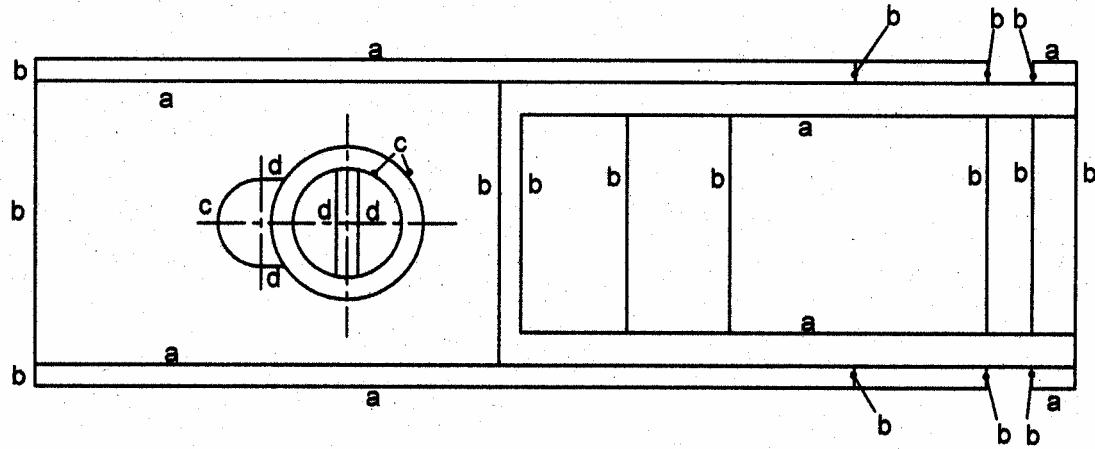
Hatching

- (h) 45° and opposing direction for 1 mark
Thread convention for 1 mark **2**
- (i) 3 areas hatched **1**

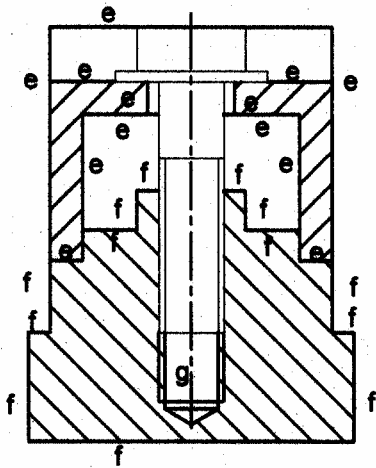
Total marks 20

Notes:

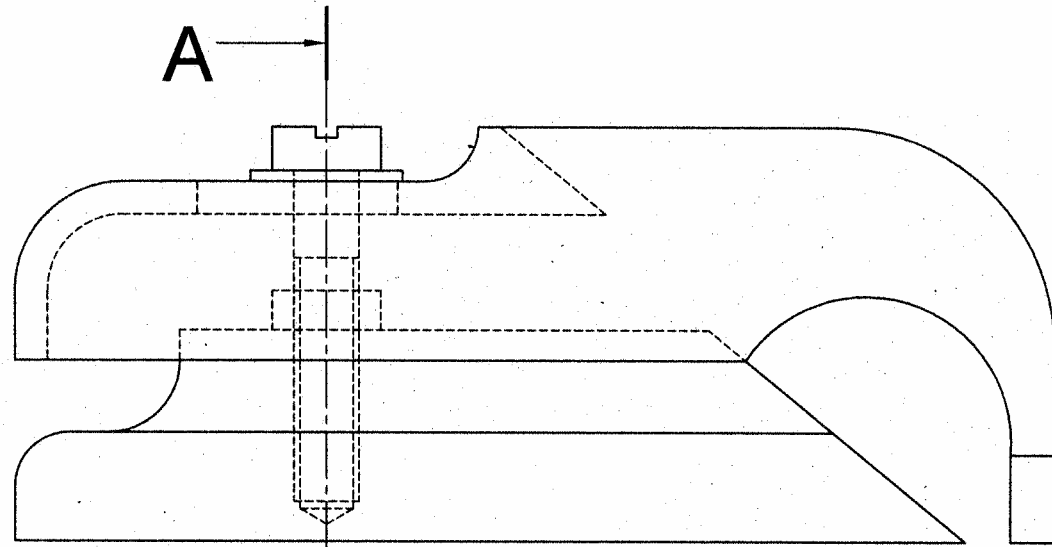
Question 12 – Plane – Assembly and Section



PLAN



SECTIONAL END ELEVATION A-A



ELEVATION

A

[END OF MARKING INSTRUCTIONS]