

STAPLE HERE

FOR OFFICIAL USE

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**X033/13/01**

NATIONAL  
QUALIFICATIONS  
2015

THURSDAY, 30 APRIL  
1.00 PM – 4.00 PM

GRAPHIC  
COMMUNICATION  
ADVANCED HIGHER

Fill in these boxes and read what is printed below.

Full name of centre

Town

Forename(s)

Surname

Date of birth

Day	Month	Year					
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Scottish candidate number									
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Number of seat
----------------

80 marks are allocated to this paper.

- 1 Answer **all** questions.
- 2 Read each question carefully before you answer.
- 3 Written answers may be in **ink** or **pencil**.
- 4 Drawings and sketches **must be in pencil**.
- 5 Coloured pencils may be used when sketching.
- 6 Dimensions are given in millimetres or as stated.
- 7 Orthographic drawings are in third angle projection.
- 8 The leaflet for Question 1 has been supplied separately. Please ensure that you have this leaflet.
- 9 **At the end of the examination**
  - check that your name is on every sheet;
  - put the sheets in correct numerical order;
  - place this sheet on top of the others;
  - join all sheets together by **stapling** at the top left-hand corner;
  - before leaving the examination room, you must give these sheets to the Invigilator (if you do not you may lose all the marks for this paper).

Marks Grid

Question	Marks
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
Total Marks	



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1

Design Elements/Principles have been given below.

Please refer to “**Discovery Point & RRS Discovery**” leaflet.

Indicate in the space provided the following:

- circle whether Design Element or Design Principle;
- describe with direct reference to the leaflet, how the design element or design principle has been used in the leaflet.

1 **Rhythm:** Design Element/Design Principle

Description:

2

2 **Colour:** Design Element/Design Principle

Description:

2

3 **Shape:** Design Element/Design Principle

Description:

2

4 **Unity:** Design Element/Design Principle

Description:

Total (8)

2

Label, on the sample text the typographical features given below.

(a) Typographical features:

- X-height
- Baseline
- Descender
- Meanline.

# Design Elements

4

(b) Explain with the aid of annotated sketches the difference between a serif and a sans serif typeface.

Total (6)

3

Describe, with the aid of sketches, the DTP terms listed below.

(a) Term: **Handles**  
Description:

(b) Term: **Widow**  
Description:

(c) Term: **Justification**  
Description:

(d) Term: **Orphan**  
Description:

1

1

1

1

Total (4)

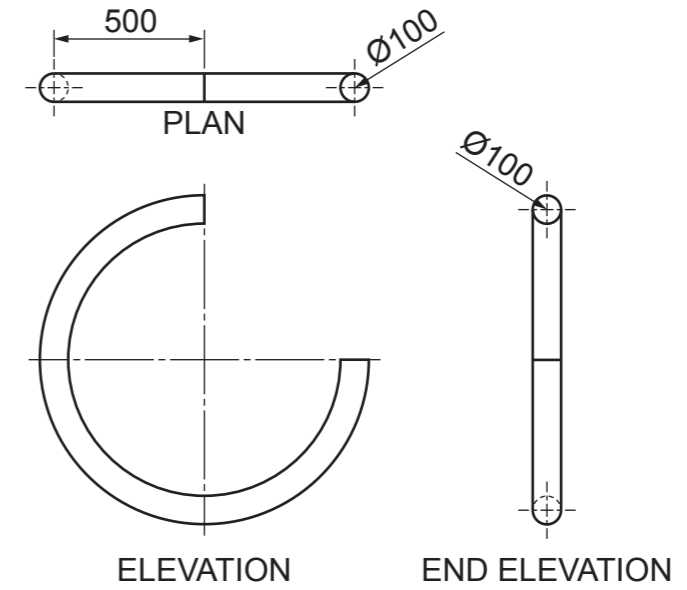
4

**Section A**

(a) Shown below, and on the following page, are orthographic views of three components to be made in a 3D modelling package.

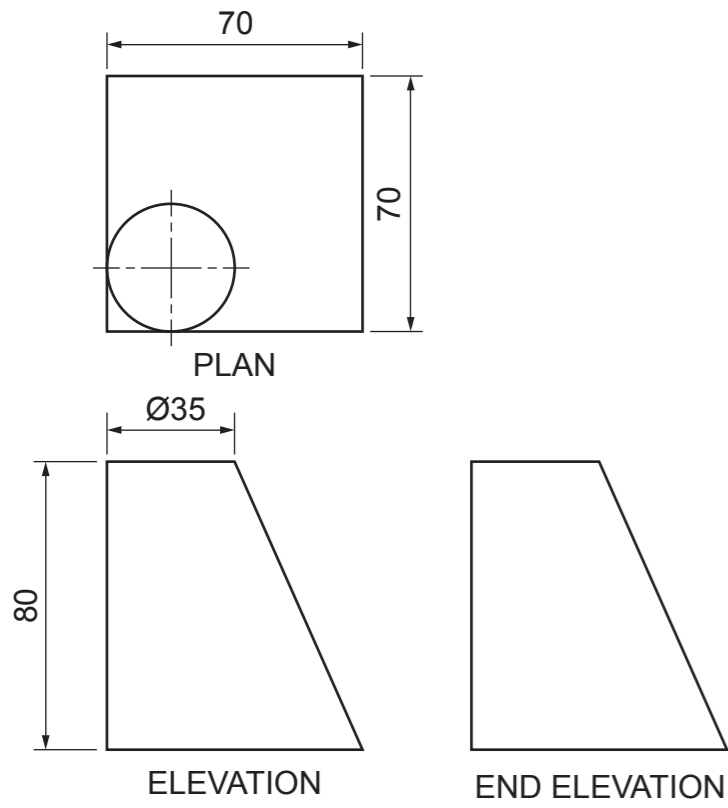
Explain, **with the aid of sketches**, and with reference to the dimensions given how each of these components could be made in 3D CAD.

(i) Component 1



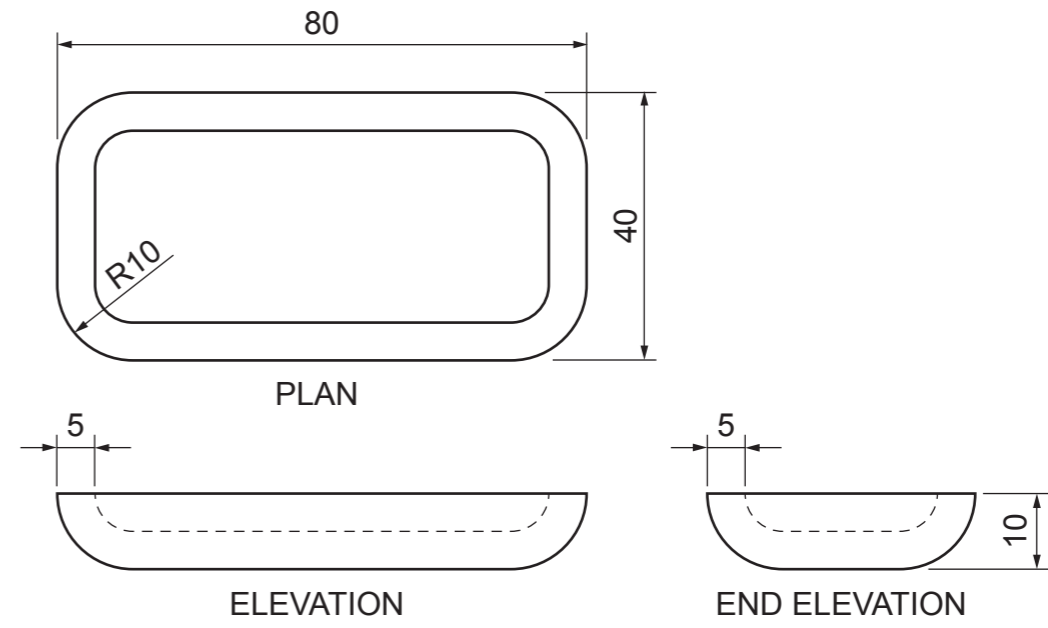
2

(ii) Component 2



2

(iii) Component 3



2

**4 (continued)**

(b) In computer aided 3D modelling lights are used to enhance a rendered image.

Describe, **with sketches**, the effects on a 3D CAD model of the following lighting types.

(i) Point

(ii) Spot

1

<sup>1</sup>  
Total (8)

**5**

There are various types of graphic files for use in CAG work.

Given the two scenarios below, state the correct file type for each and give an explanation why this is so.

(i) A full colour picture to appear on a web page.

File type

Explanation

(ii) A full colour picture to appear in a printed magazine.

File type

Explanation

2

<sup>2</sup>  
Total (4)

**Section A**

6

Section A

Describe the DTP terms listed below.

- (a) PANTONE
  - (i) Meaning
  
  
  
  
  
  
  
  
  
  - (ii) Example

2

- (b) SPOT COLOUR
  - (i) Meaning
  
  
  
  
  
  
  
  
  
  - (ii) Example

<sup>2</sup>  
Total (4)

7

The elevation of a cut hollow oblique cone is given.

Draw, in the positions indicated:

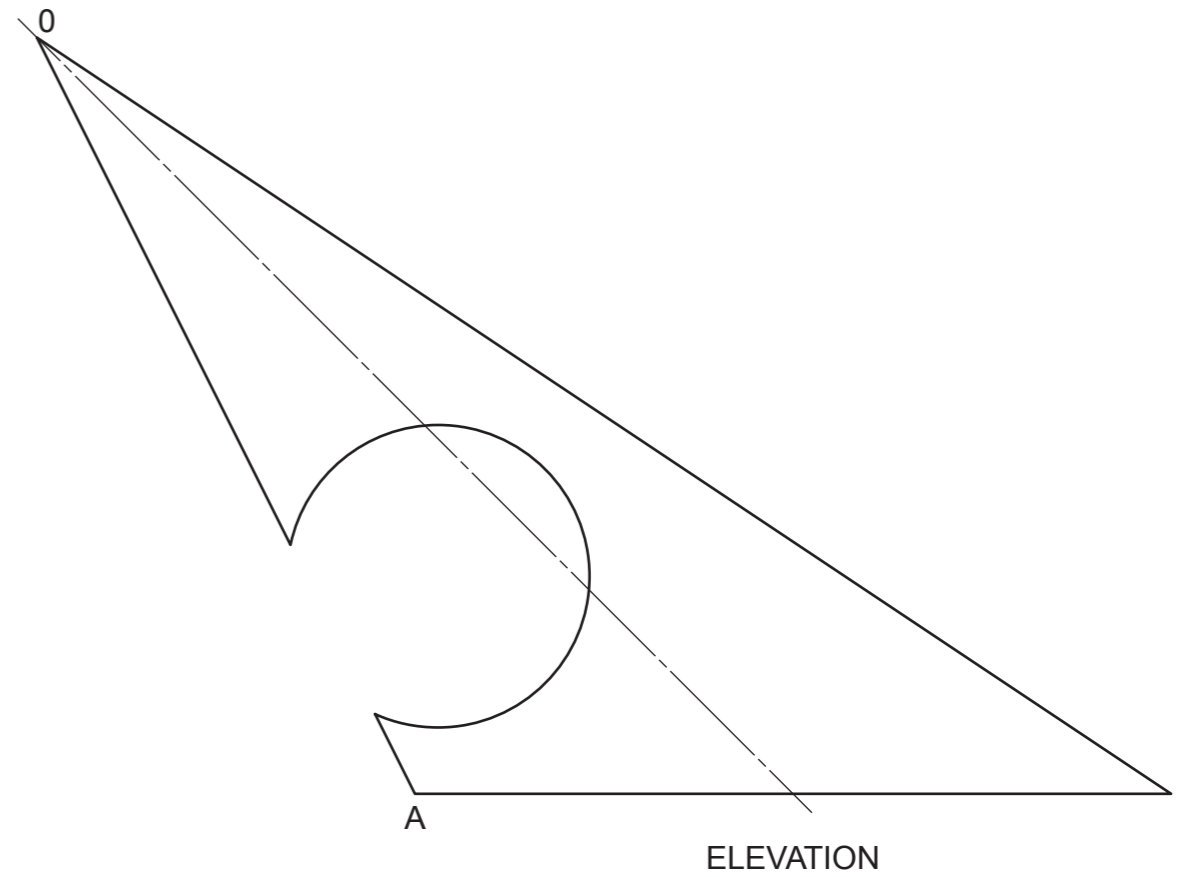
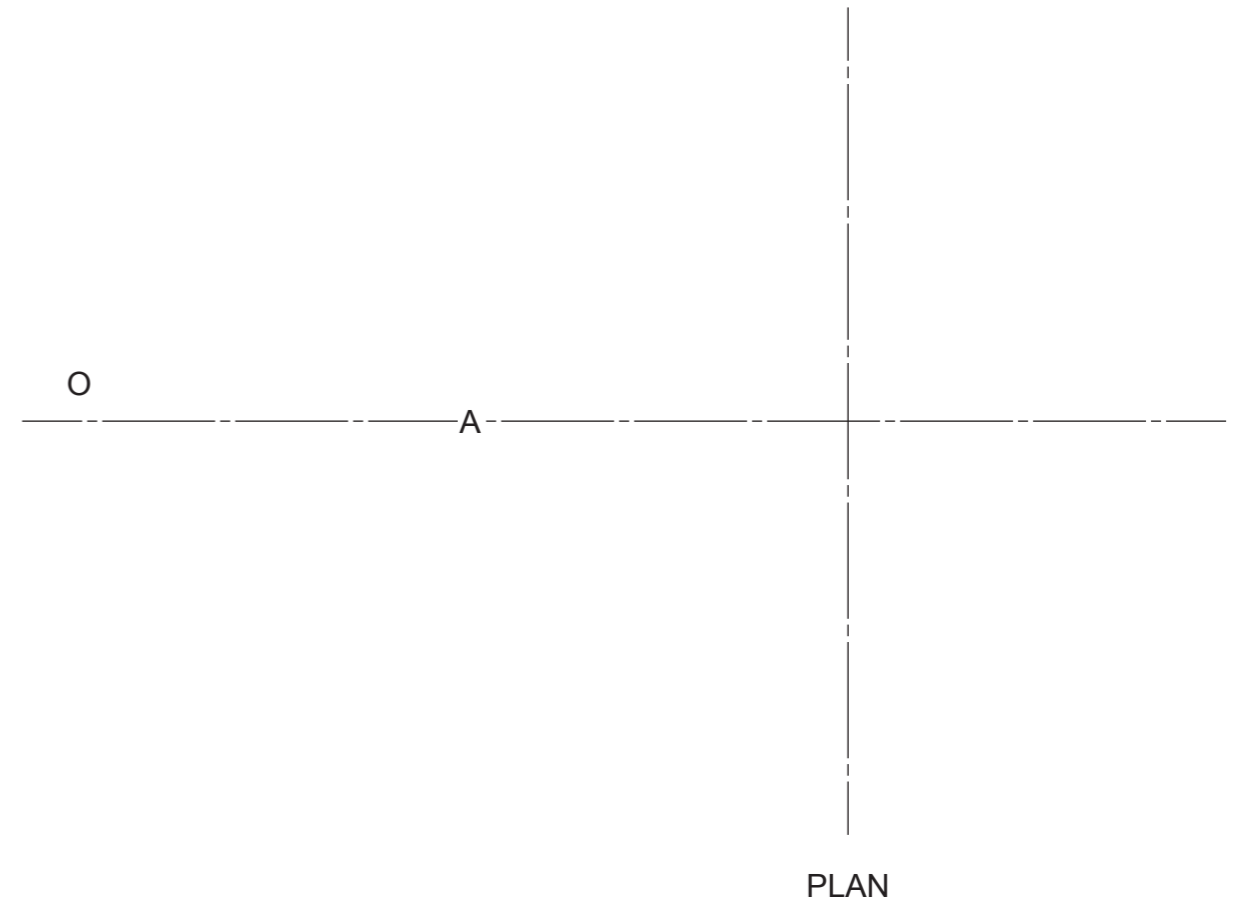
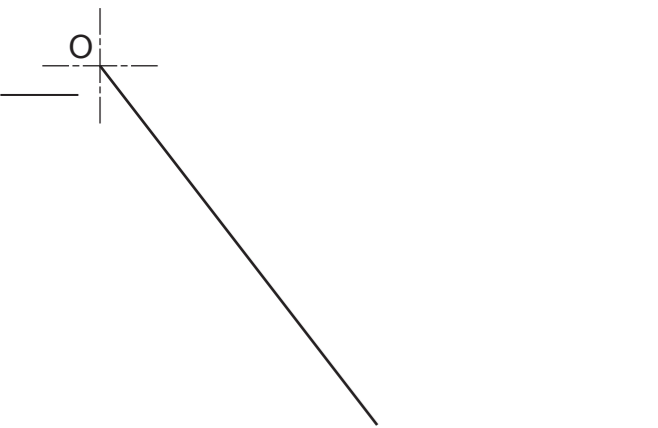
- (a) the plan;
- (b) the development of the sloping surface, seam at O–A.

Show all hidden detail.

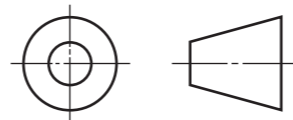
(11 marks)

7

a	
b	
c	
d	
e	
f	
g	
h	
i	
j	
k	
l	
m	
n	



DEVELOPMENT





8

The plan, elevation, end elevation and pictorial view of a summer house are shown.

**Draw** the measured perspective view of the hut from the spectator point.

The spectator point (SP), picture plane (PP), ground line (GL) and eye level (EL) are all given.

**Do not show hidden detail.**

**(13 marks)**

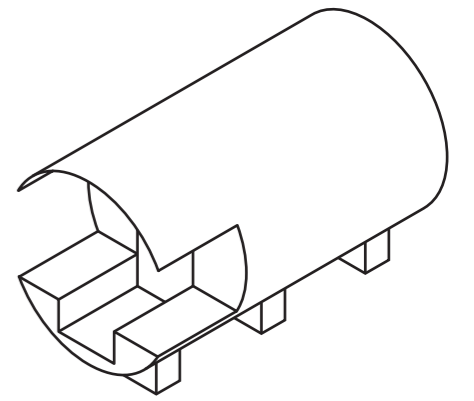
EL \_\_\_\_\_

GL \_\_\_\_\_

PP \_\_\_\_\_

Section B

8

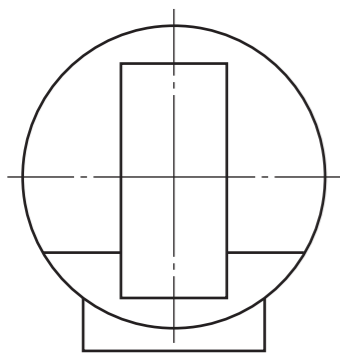


PICTORIAL VIEW

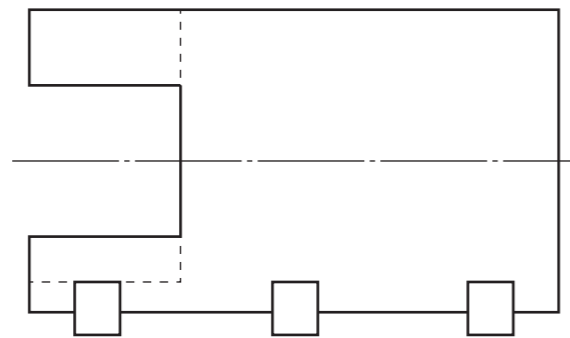
EL \_\_\_\_\_

GL \_\_\_\_\_

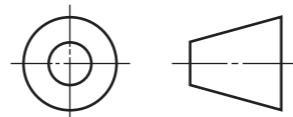
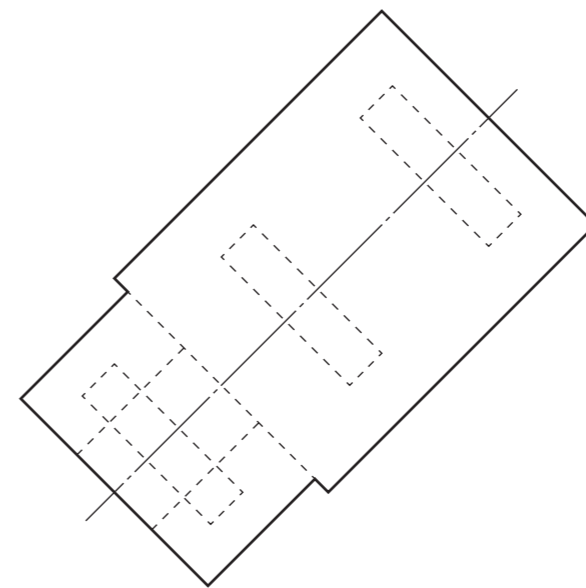
PP \_\_\_\_\_



END ELEVATION

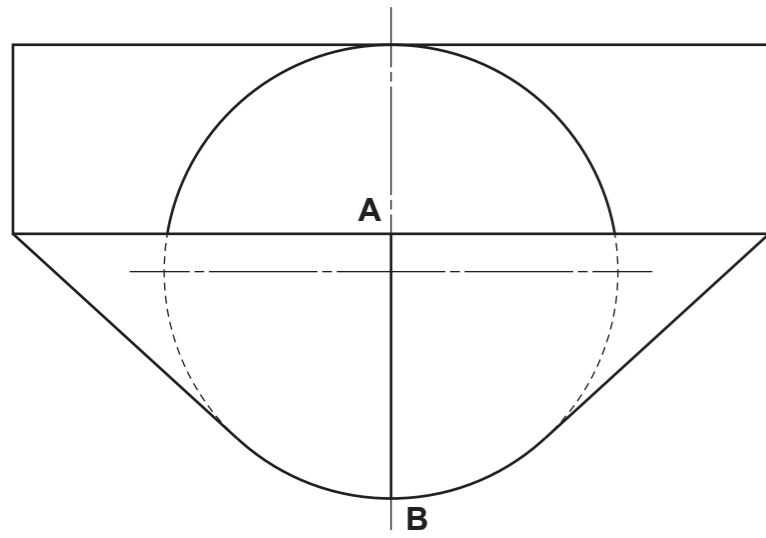


ELEVATION

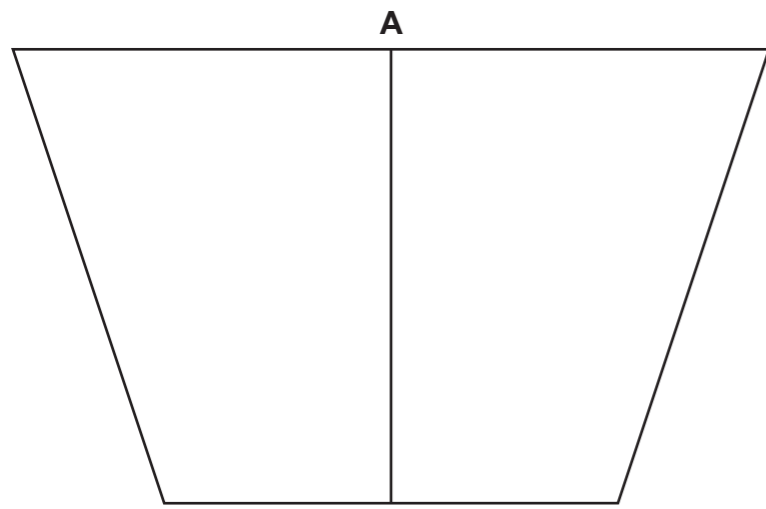


<i>a</i>	
<i>b</i>	
<i>c</i>	
<i>d</i>	
<i>e</i>	
<i>f</i>	
<i>g</i>	
<i>h</i>	
<i>i</i>	
<i>j</i>	
<i>k</i>	
<i>l</i>	
<i>m</i>	
<i>n</i>	

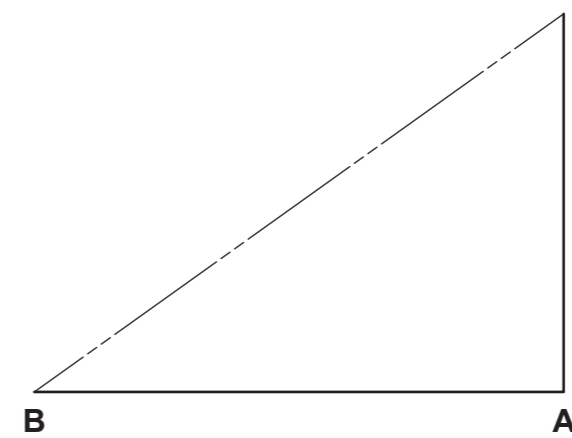
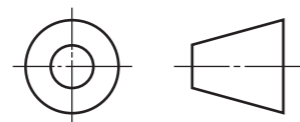
9 The plan and elevation of a transition piece are given.  
**Draw**, in the position indicated, the surface development cut along seam **AB**. (12 marks)



PLAN



ELEVATION



DEVELOPMENT

Section B 9

<i>a</i>	
<i>b</i>	
<i>c</i>	
<i>d</i>	
<i>e</i>	
<i>f</i>	
<i>g</i>	
<i>h</i>	
<i>i</i>	
<i>j</i>	
<i>k</i>	
<i>l</i>	
<i>m</i>	
<i>n</i>	

10

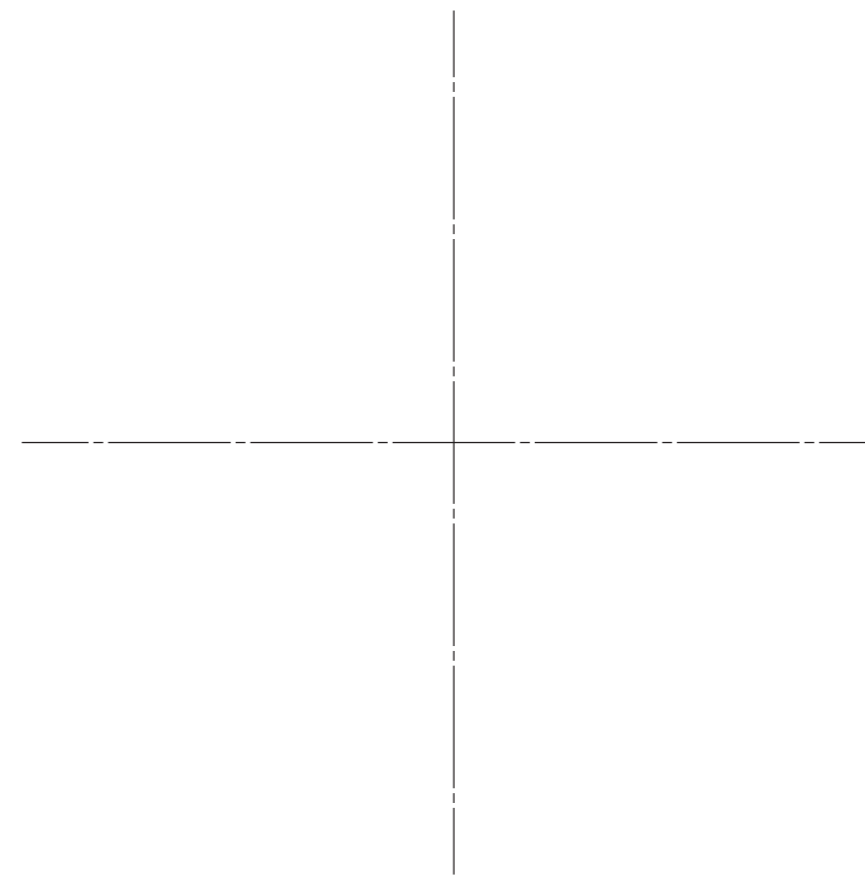
The elevation of a solid right cone is given below.

Draw:

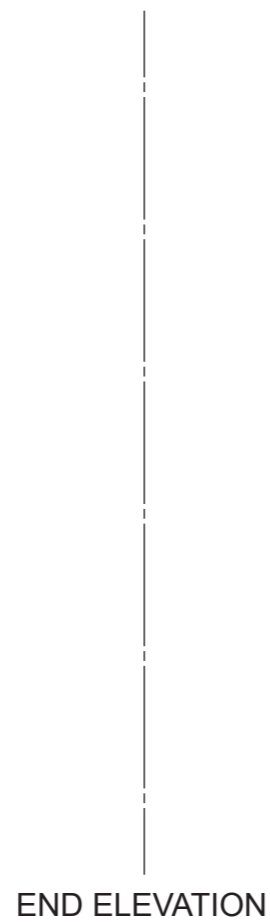
- (a) the plan;
- (b) the end elevation.

Show all hidden detail.

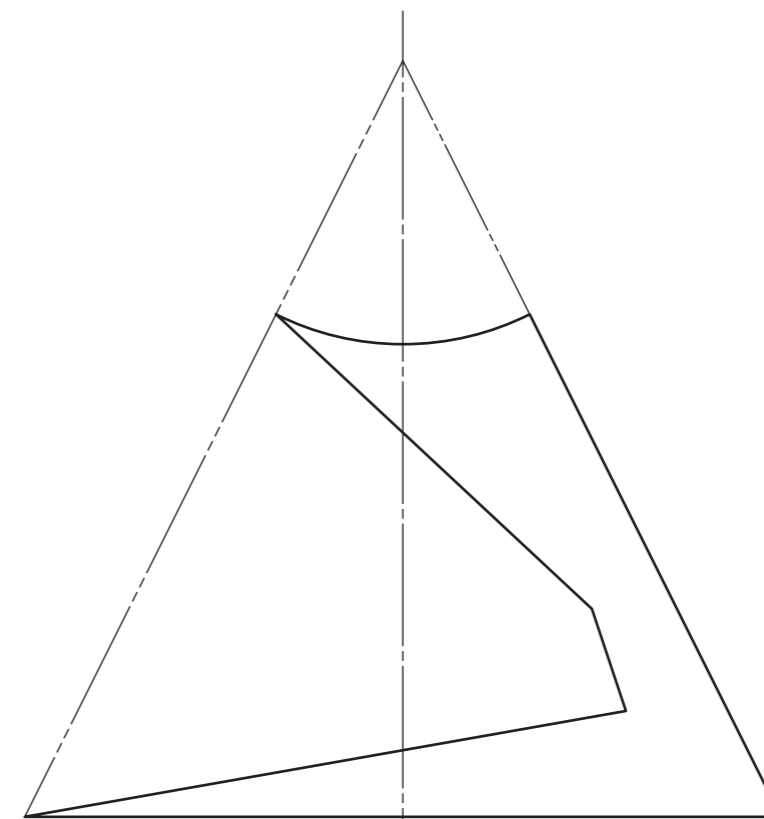
(10 marks)



PLAN

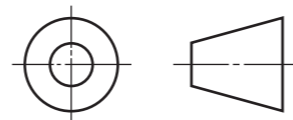


END ELEVATION



ELEVATION

<i>a</i>	
<i>b</i>	
<i>c</i>	
<i>d</i>	
<i>e</i>	
<i>f</i>	
<i>g</i>	
<i>h</i>	
<i>i</i>	
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<i>n</i>	



Candidate's Name \_\_\_\_\_

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