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FOR OFFICIAL USE

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X033/301

NATIONAL
QUALIFICATIONS
2009

THURSDAY, 28 MAY
9.00 AM – 12.00 NOON

GRAPHIC
COMMUNICATION
HIGHER

Fill in these boxes and read what is printed below.

| | | | |
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| Full name of centre | | Town | |
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| Forename(s) | | Surname | |
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| Date of birth | | Scottish candidate number | |
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**1 140 Marks are allocated to this paper. Section A = 40 marks
Section B = 100 marks**

- Candidates should attempt **all** questions in **Section A** and are advised to spend approximately 45 minutes on this section. A supplementary page is included at the end of **Section A** for use if extra space is required.
- Candidates should attempt questions 8a, 8b, 9, 10, 11 and **either** question 12 or question 13 in **Section B**.
- Read each question carefully before you answer.
- Written answers may be in **ink or pencil**.
- Drawings and sketches **must be in pencil**.
- Dimensions are given in millimetres or as stated.
- Orthographic drawings are in third angle projection.
- 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).

| Question | Marks |
|----------|-------|
|----------|-------|

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| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| Section A Total | |

| | |
|----------------------------|--|
| 8a | |
| 8b | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| Section B Total | |

**EITHER
OR**

| Total Marks A + B | |
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A supplementary page is included at the end of Section A for use if extra space is required.

Marks

1. Preliminary, Production and Promotional graphics are used extensively in the consumer, construction and engineering industries.

(b) On the drawings below, sketch the British Standard convention that represents:

Marks

- (i) a roller bearing;

2

Explain the purpose of each **type** of graphic and give **one** example of each.

Preliminary Purpose

..... 1

Example 1

Production Purpose

..... 1

Example 1

Promotional Purpose

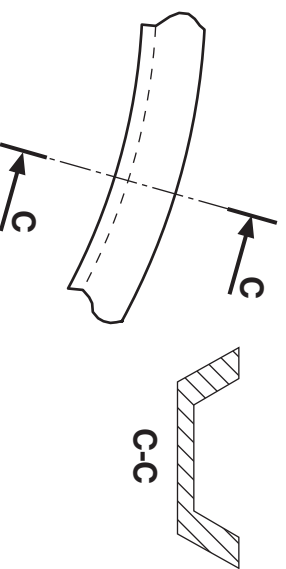
..... 1

Example 1

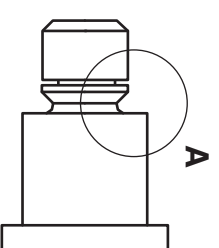
(6)

2. (a) State the British Standard **type** of sectional view indicated at each drawing.

- (c) State the **type of view** indicated at detail **A**.

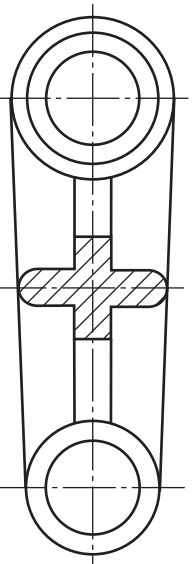


Type of section 1



Detail A scale 5:1

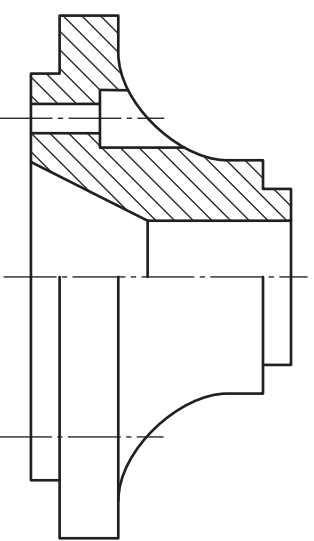
Type of view 2



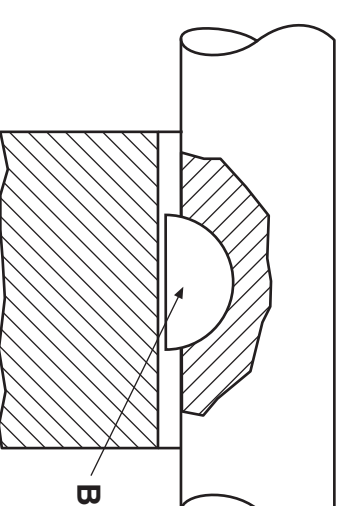
Type of section 1

- (d) State the name of component B, represented by the British Standards convention.

Component B 1

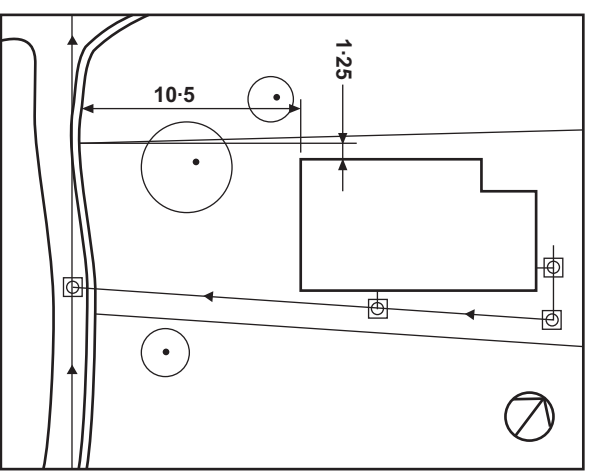
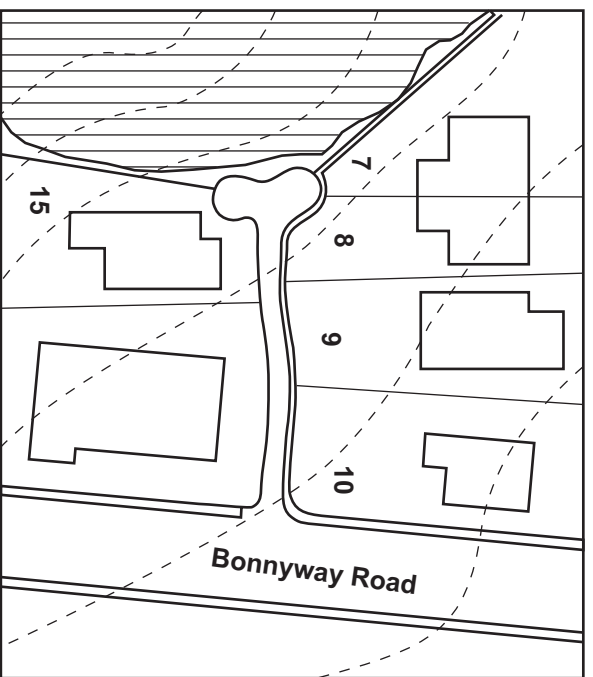


Type of section 1



(9)

3.



Marks

Block Plan (not to scale)

Site Plan (not to scale)

(a) For each of the above building plan types, state an appropriate British Standard scale.

block plan scale 1

site plan scale 1

(b) State **three** features that commonly appear on each of the two types of given plans; (do not use the same feature more than once).

block plan feature 1

feature 1

feature 1

site plan feature 1

feature 1

feature 1

(8)

4.

There are three stages in designing a Desk Top Published page prior to electronic production.

Complete the information required for stages 2 and 3.

Stage 1 *Research*

Method: *Investigate target market and function of proposed document.*

Purpose: *To generate a document specification.*

Stage 2

Method:

..... 1

Purpose:

..... 1

Stage 3

Method:

..... 1

Purpose:

..... 1

(6)

5.

Colour inkjet printers and colour laser printers have different properties.

(a) State **two** advantages that a colour laser printer would have over a colour inkjet printer.

.....

.....

..... 2

(b) State **one** advantage that a colour inkjet printer has over a colour laser printer.

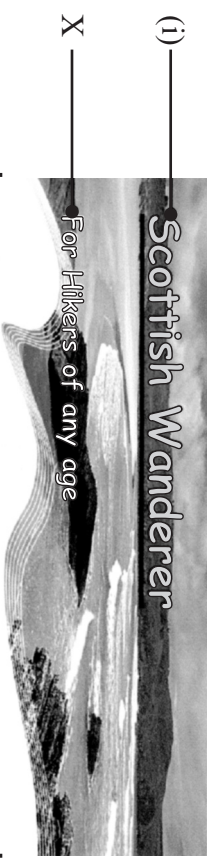
.....

..... 1

(3)

Marks

6.



(i) _____

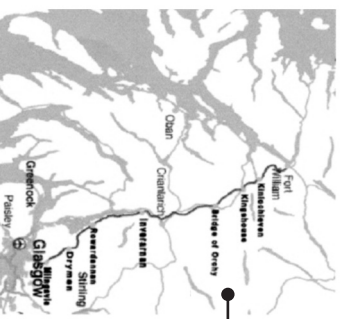
X _____

Be Adventurous

Pit yourself against the elements in an exhilarating experience or, take it quietly doing just what suits your purpose. Your activity holiday can offer many experiences, some not to be embarked upon without knowledge - mountain climbing in Wester Ross or the North West of Sutherland, surfing the Caithness beaches to mention only two requiring the skills of expert.

The Way

Go the extra mile to seek out activities in the Northern Highlands to suit different tastes and different abilities then wonder why you ever tried elsewhere! Where else can you get on the back of a horse and trek through some of the finest scenery in the world or golf at the fascinating 9-hole course in Durness on a cliff edge affording so many distracting views. It is difficult to keep your eyes on the ball, a challenge quite different from the elegance of the Royal Golf at Dornoch. Caithness and Ross-shire both offer many courses - check them out on this site.



(iii)

(iv)

(v)

Marks

7.

Describe the effect that the following computer illustration features would produce.

Autotracing

..... 1

Colour gradient

..... 1 (2)

(a) State the desk top publishing **terms** for each of the numbered elements.

(i) (ii) 2

(iii) (iv) 2

(v) 1

(b) State the term for the effect used on the text at X “For Hikers of any age”.

..... 1

(6)

Use this page if extra space is required for answers to Questions 1 to 7.

Number each answer clearly.

The elevation and end elevation of a traditional tent, flagpole and flag are shown. Draw a **measured 2-point perspective** view of the tent, flagpole and flag.

The spectator point (SP), perpendicular plane (PP), ground level (GL), eye level (EL) and plan are given.

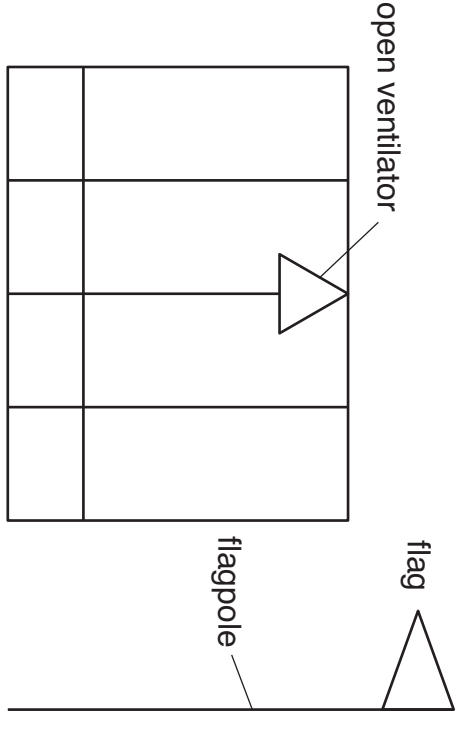
Do not show hidden detail. (15 marks)

EL _____ Candidates may find Question 8b helpful for details of the ventilator.

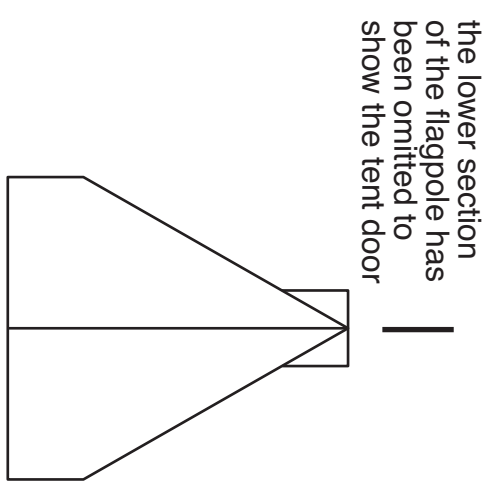
GL _____

PP _____

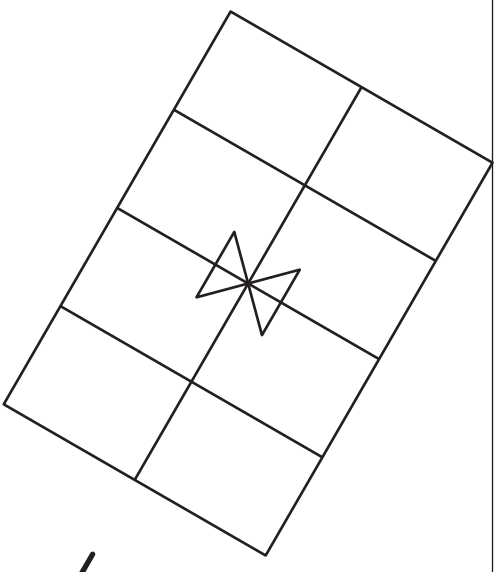
Section B



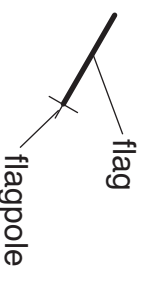
ELEVATION



END ELEVATION

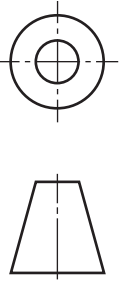


PLAN



| | |
|---|--|
| a | |
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[X033/301]



Candidate's Name _____ SP

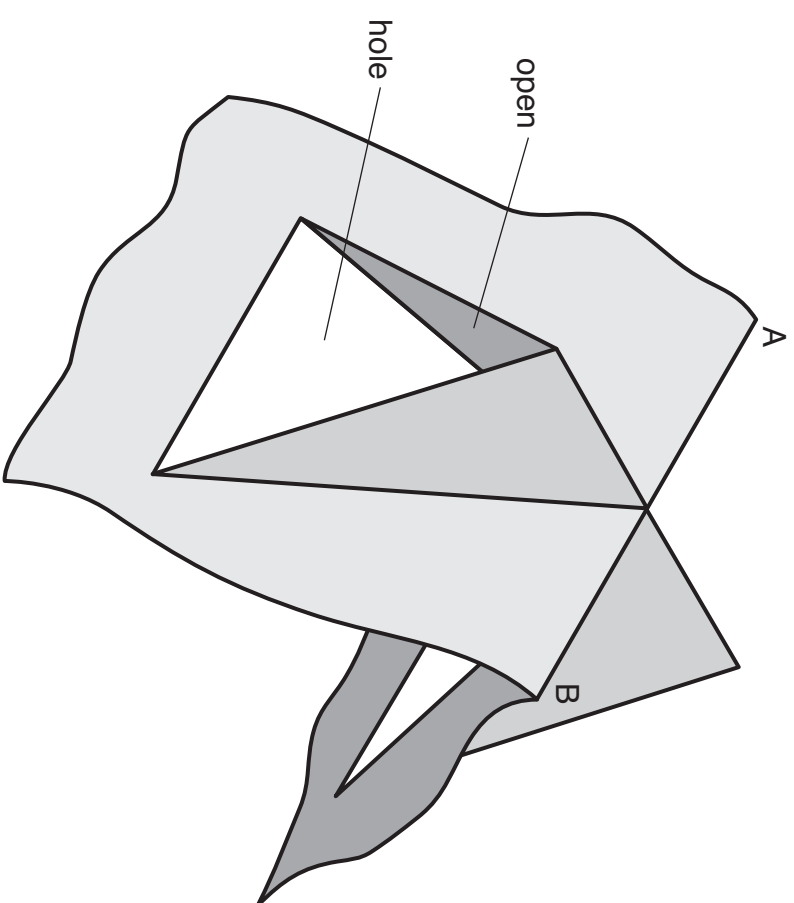
The elevation, end elevation and an isometric sketch as part views of the ventilator in **Question 8a** are given.

Draw an **Auxiliary Plan** of the ventilator from the elevation showing part of the tent from A to B.

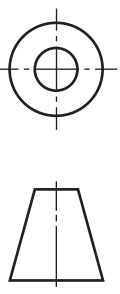
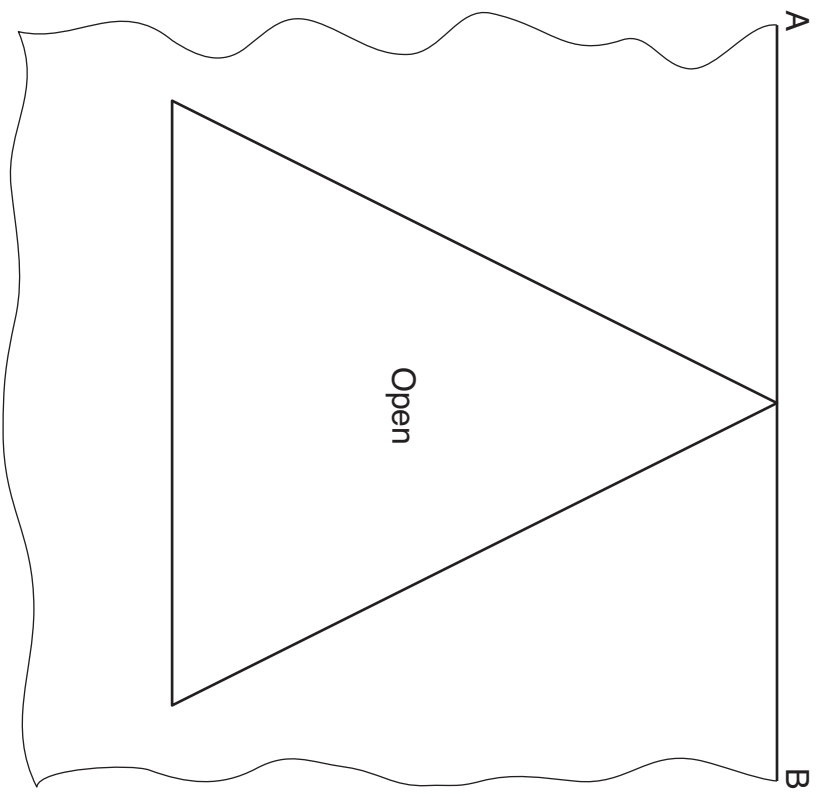
Show hidden detail.

(10 marks)

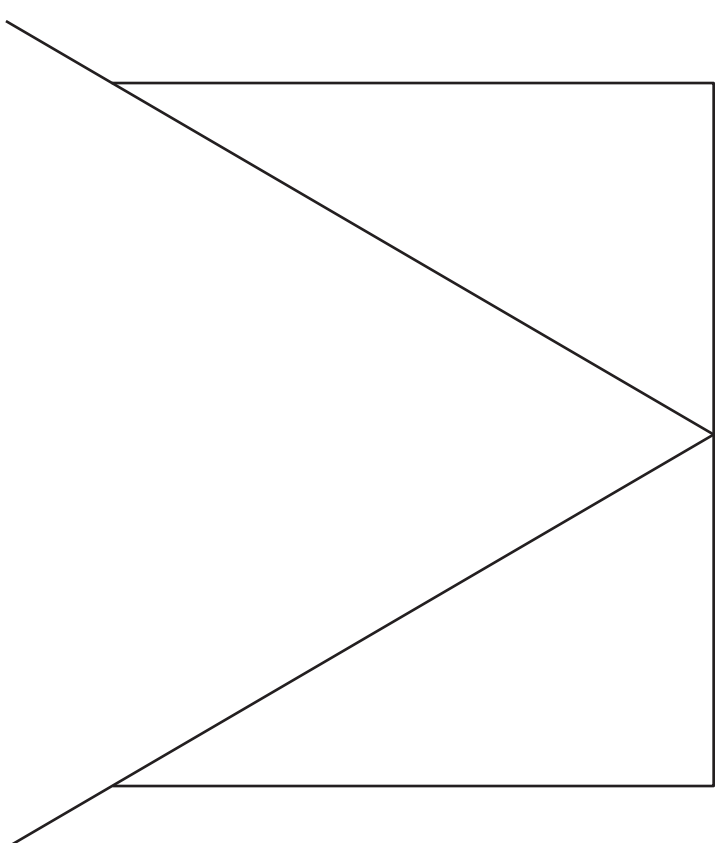
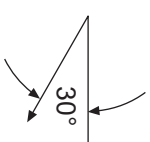
Section B



ISOMETRIC SKETCH



END ELEVATION



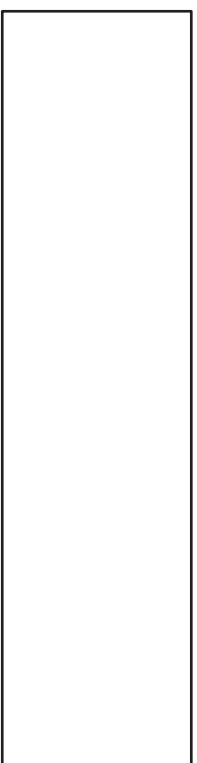
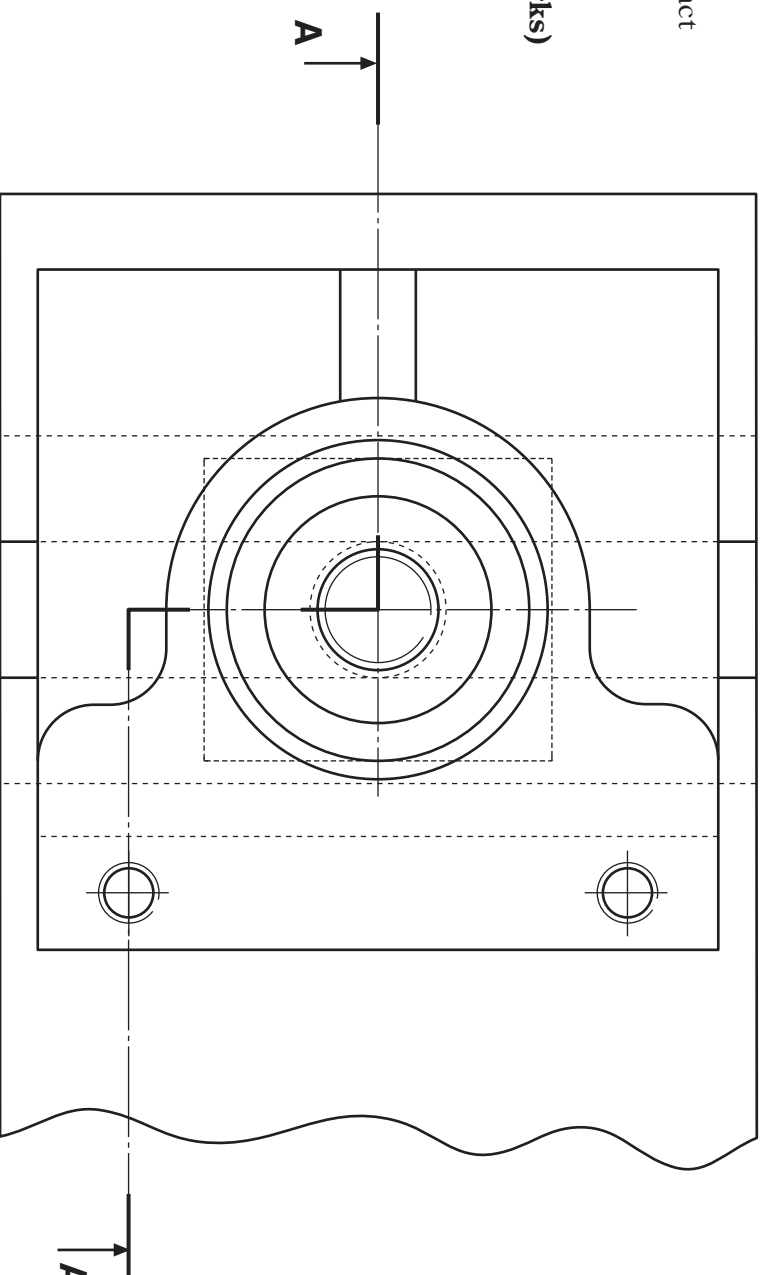
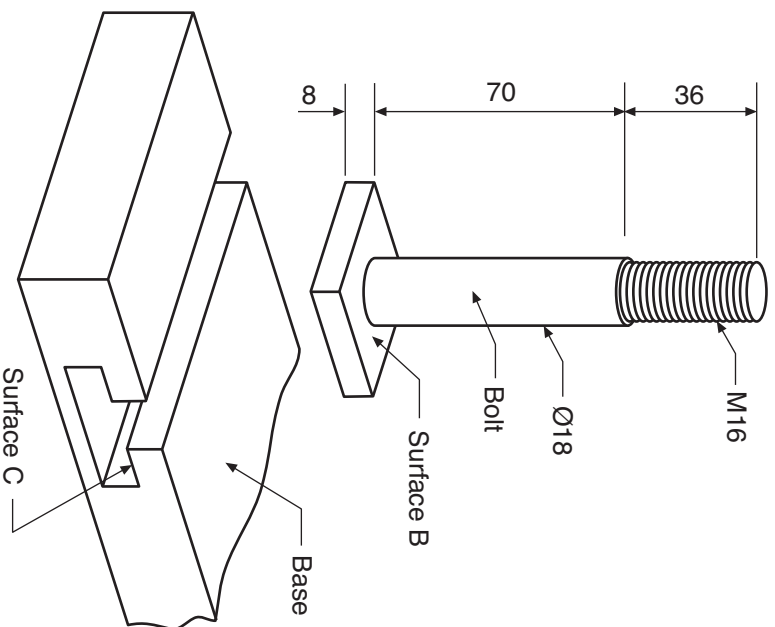
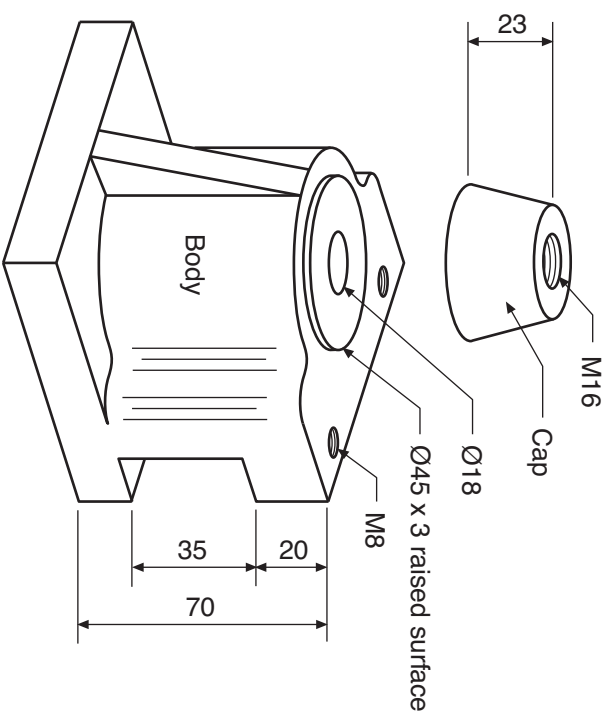
ELEVATION

| | |
|---|--|
| a | |
| b | |
| c | |
| d | |
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| k | |
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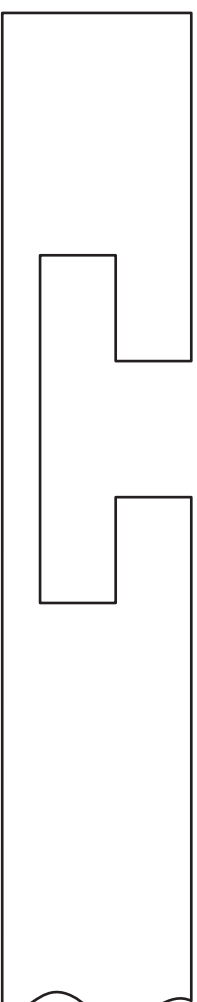
An exploded pictorial of the parts of a toolpost is shown. The complete assembled plan, incomplete sectional elevation and incomplete end elevation are given.

- Draw**, full size and in the positions indicated:
- (a) the assembled stepped sectional elevation on **A-A**. **Surface B** and **Surface C** should be in contact with each other. Do not section the bolt.
 - (b) the assembled end elevation.

(25 marks)



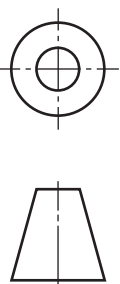
END ELEVATION



STEPPED SECTIONAL ELEVATION ON A-A

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|---|--|
| a | |
| b | |
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| d | |
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| f | |
| g | |
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[X033/3011]



Candidate's Name _____

An outline of a dog's play toy is shown.

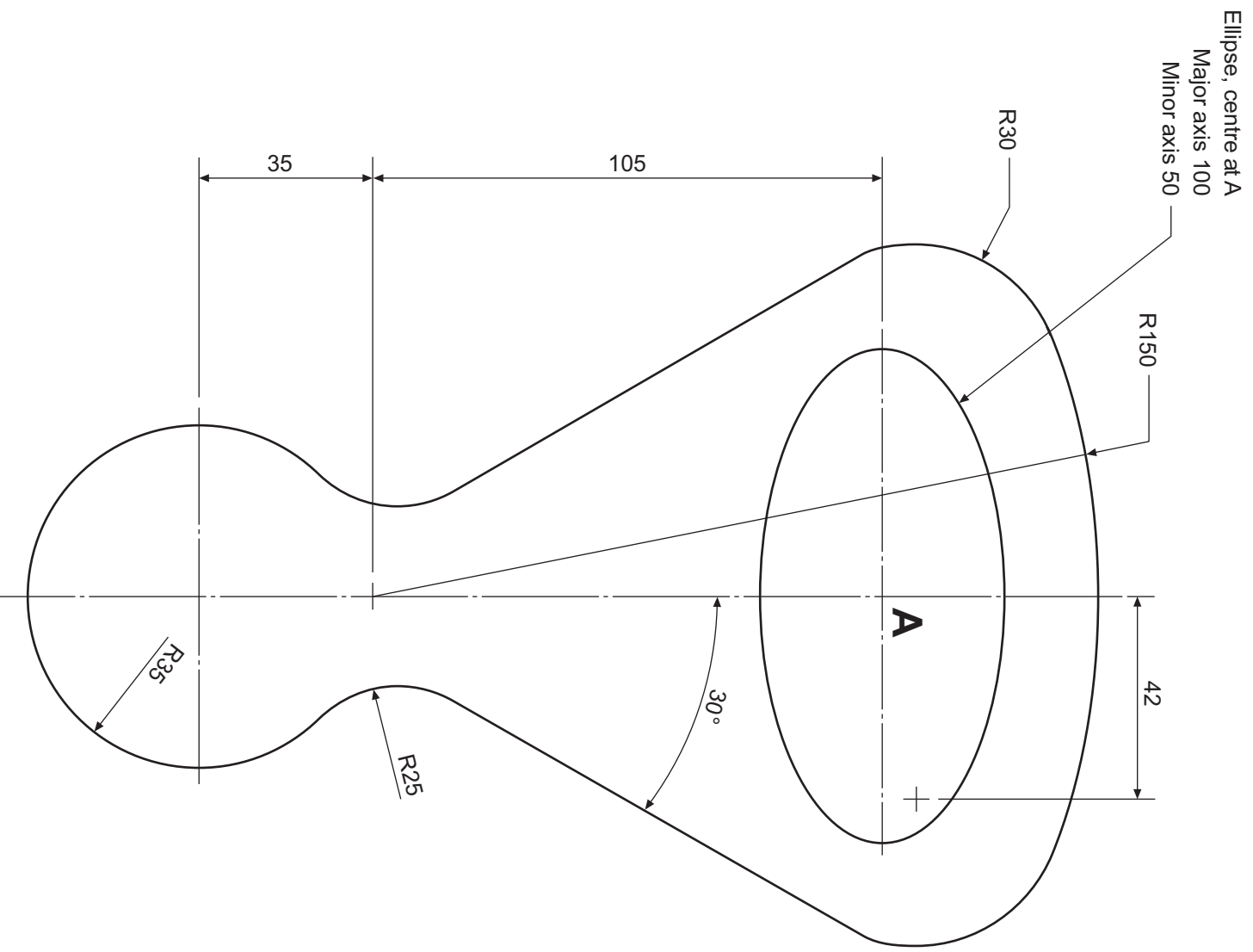
Draw the outline of the toy on the given start, using the given sizes.

Show clearly the centres and construction used to draw all the arcs.

Do not show dimensions.

(10 marks)

Section B



SKETCH OF TOY (NOT TO SCALE)



TOY (SCALE 1:1)

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|---|--|
| a | |
| b | |
| c | |
| d | |
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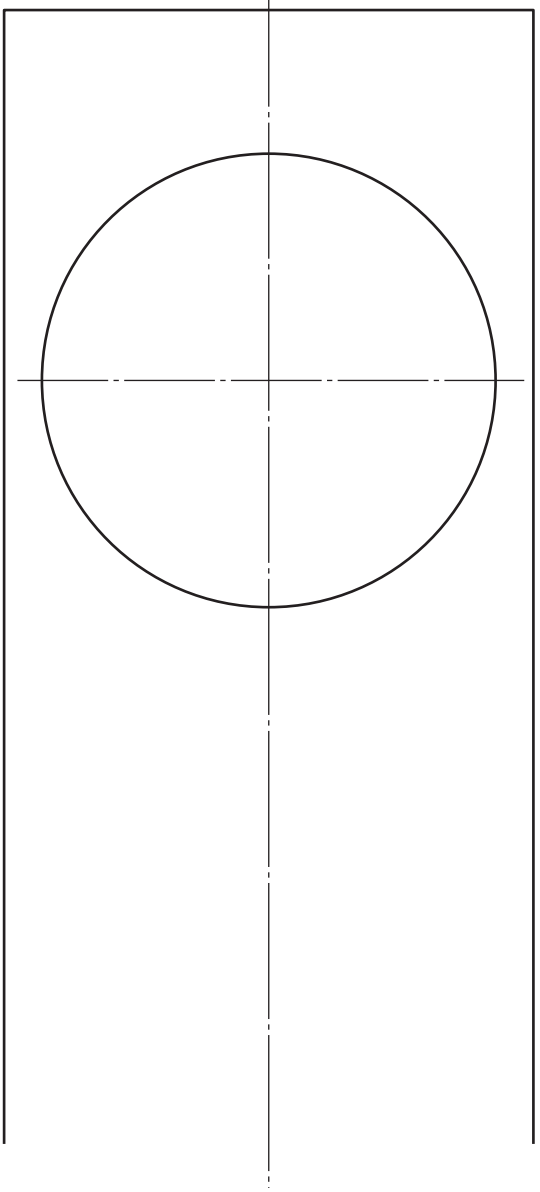
The incomplete elevation, incomplete plan and end elevation of a sheet metal body shell for a reproduction racing car are given. Pictorial sketches are also shown.

Draw:

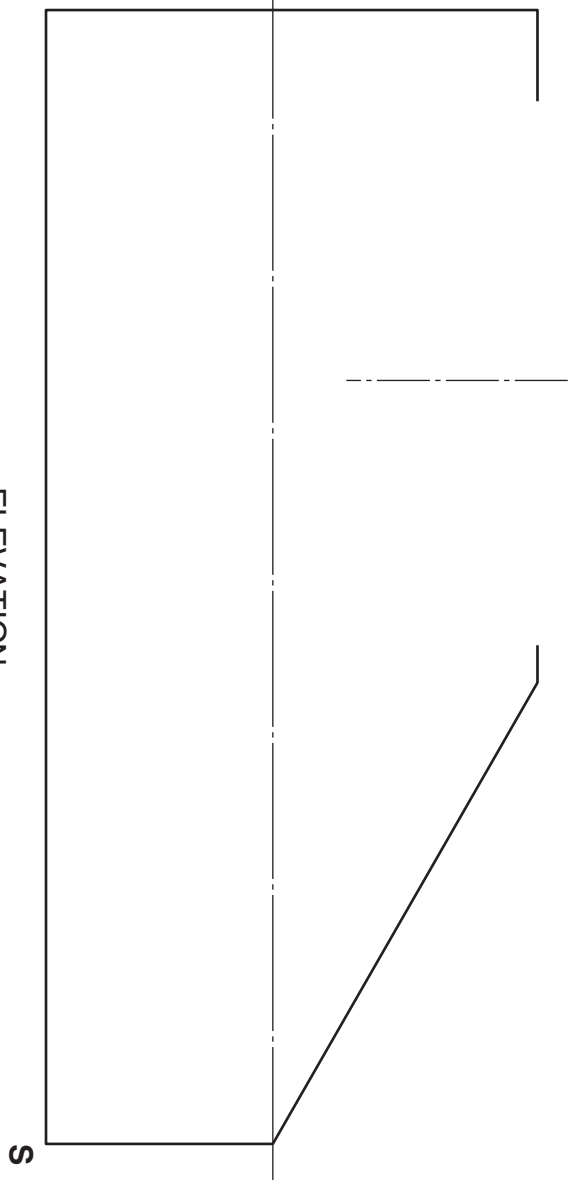
- (a) the completed elevation;
- (b) the completed plan;
- (c) a symmetrical half development of the body shell, using the given start **S**.

(20 marks)

Section B

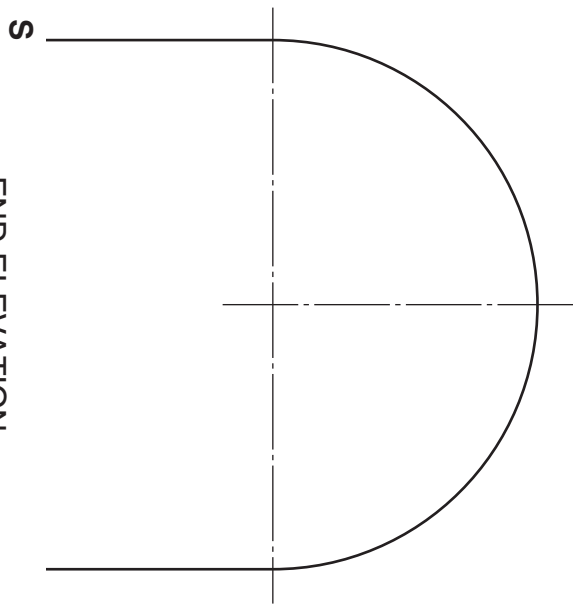
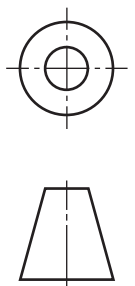


PLAN

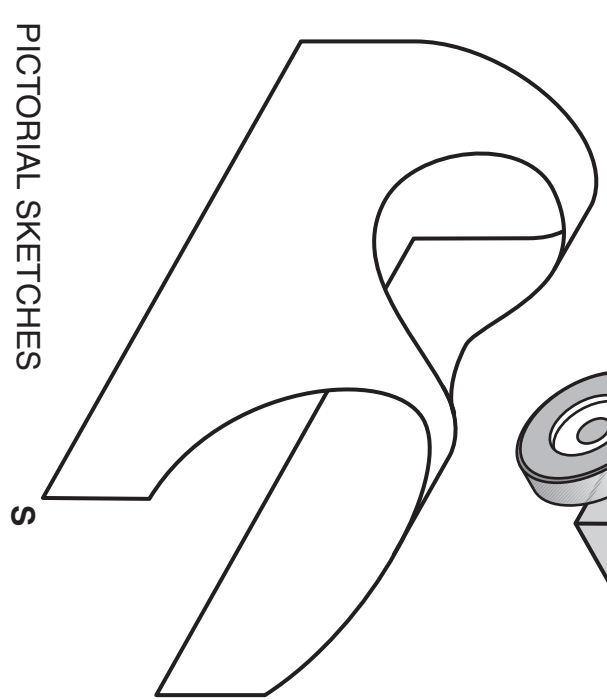
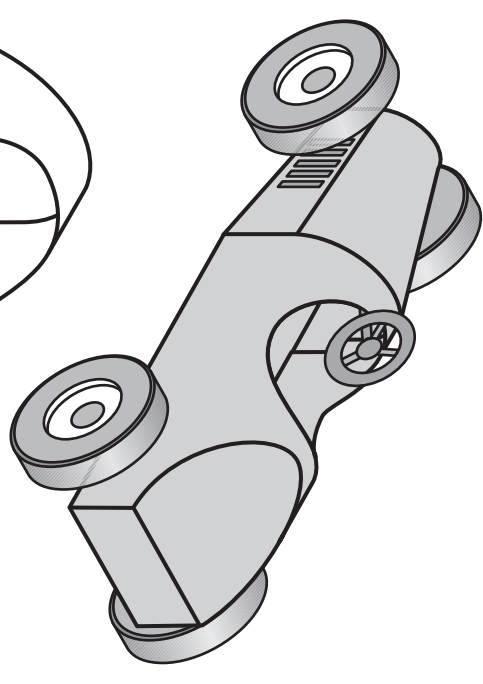


ELEVATION

[X033/301]



END ELEVATION



PICTORIAL SKETCHES

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Candidate's Name _____

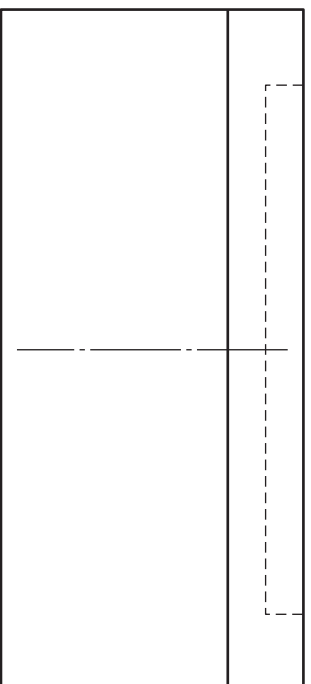
The elevation, section and incomplete plan of a mirror assembly are given.

There are 2 parts to the assembly; a solid body and a removable mirror.

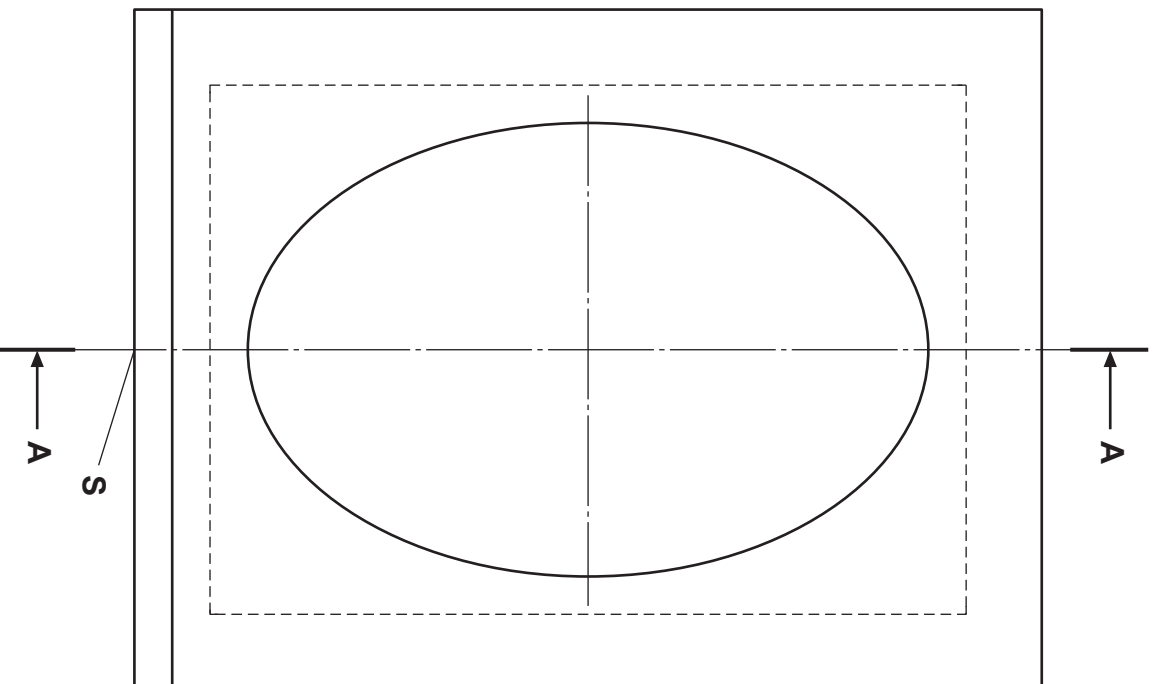
Draw:

- (a) the completed plan. **Show hidden detail.**
- (b) an exploded isometric view of Section A-A. Start at **S**. **Do not show hidden detail. Do not show hatching.**

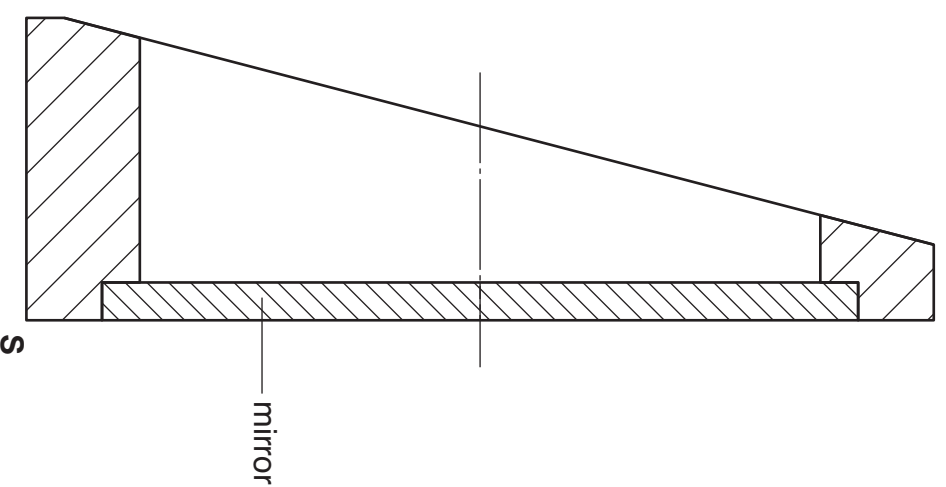
(20 marks)



PLAN



ELEVATION

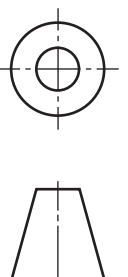


SECTION A-A



EXPLODED ISOMETRIC

[X033/301]



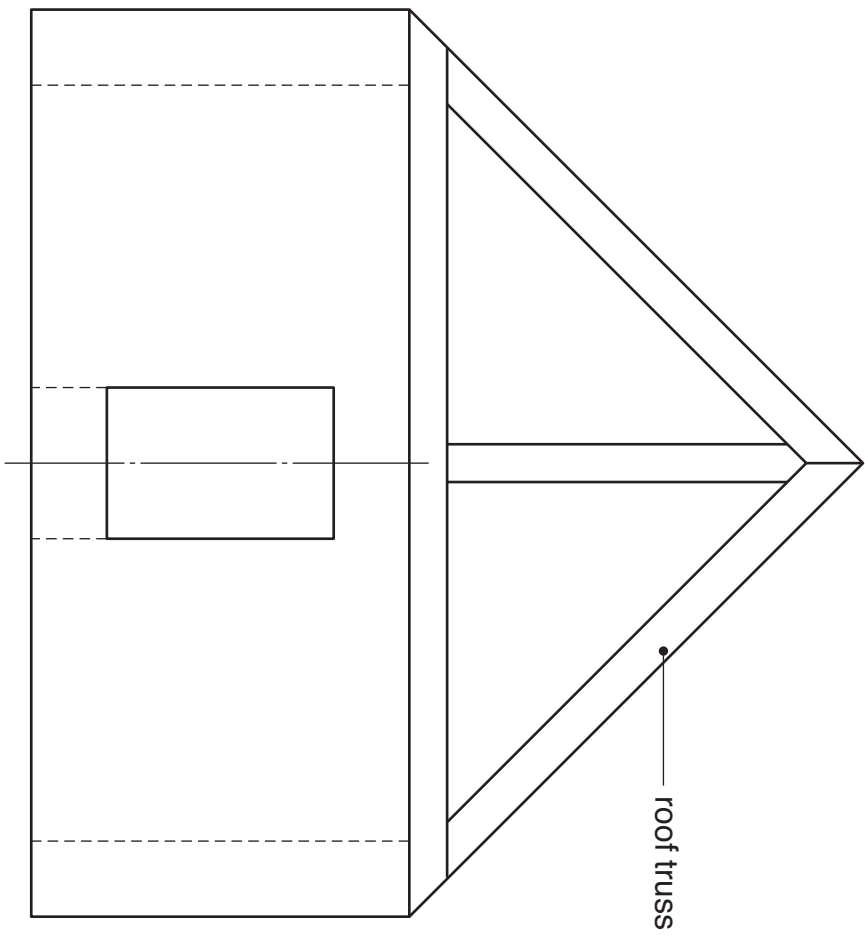
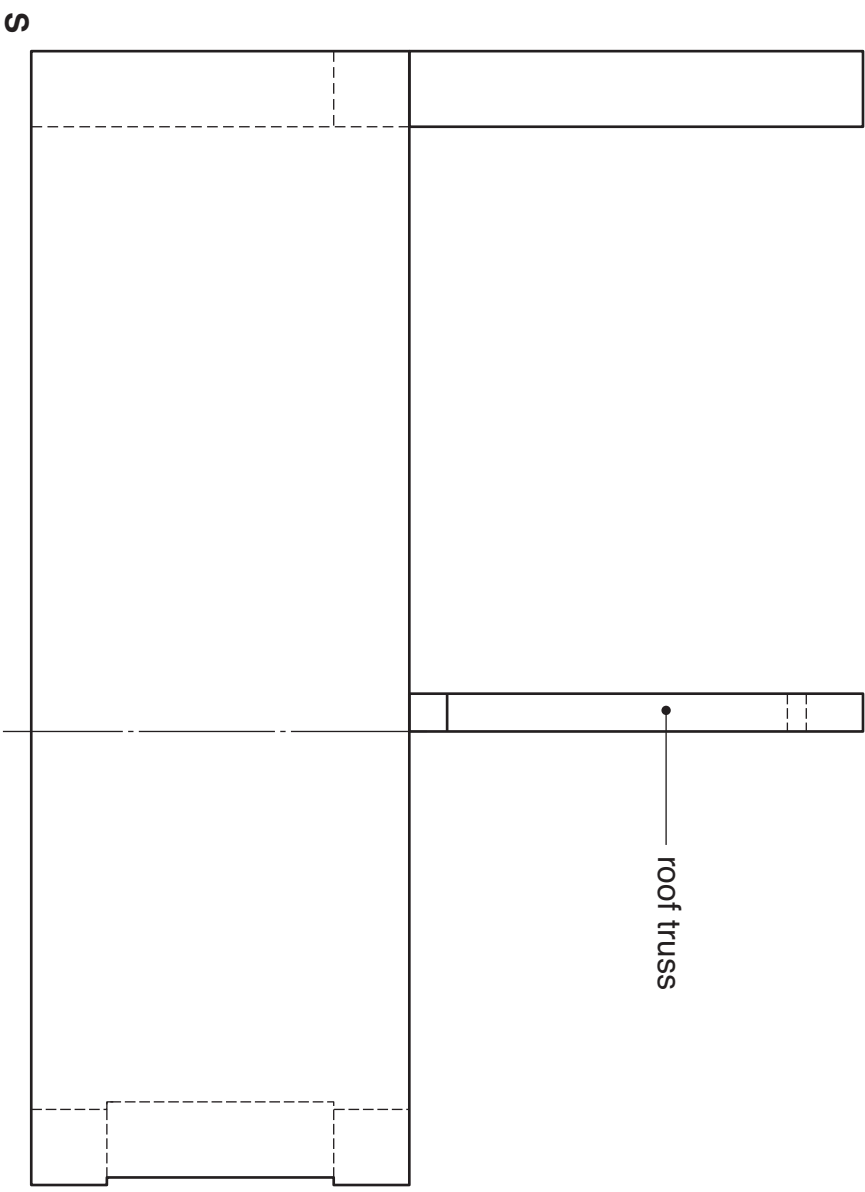
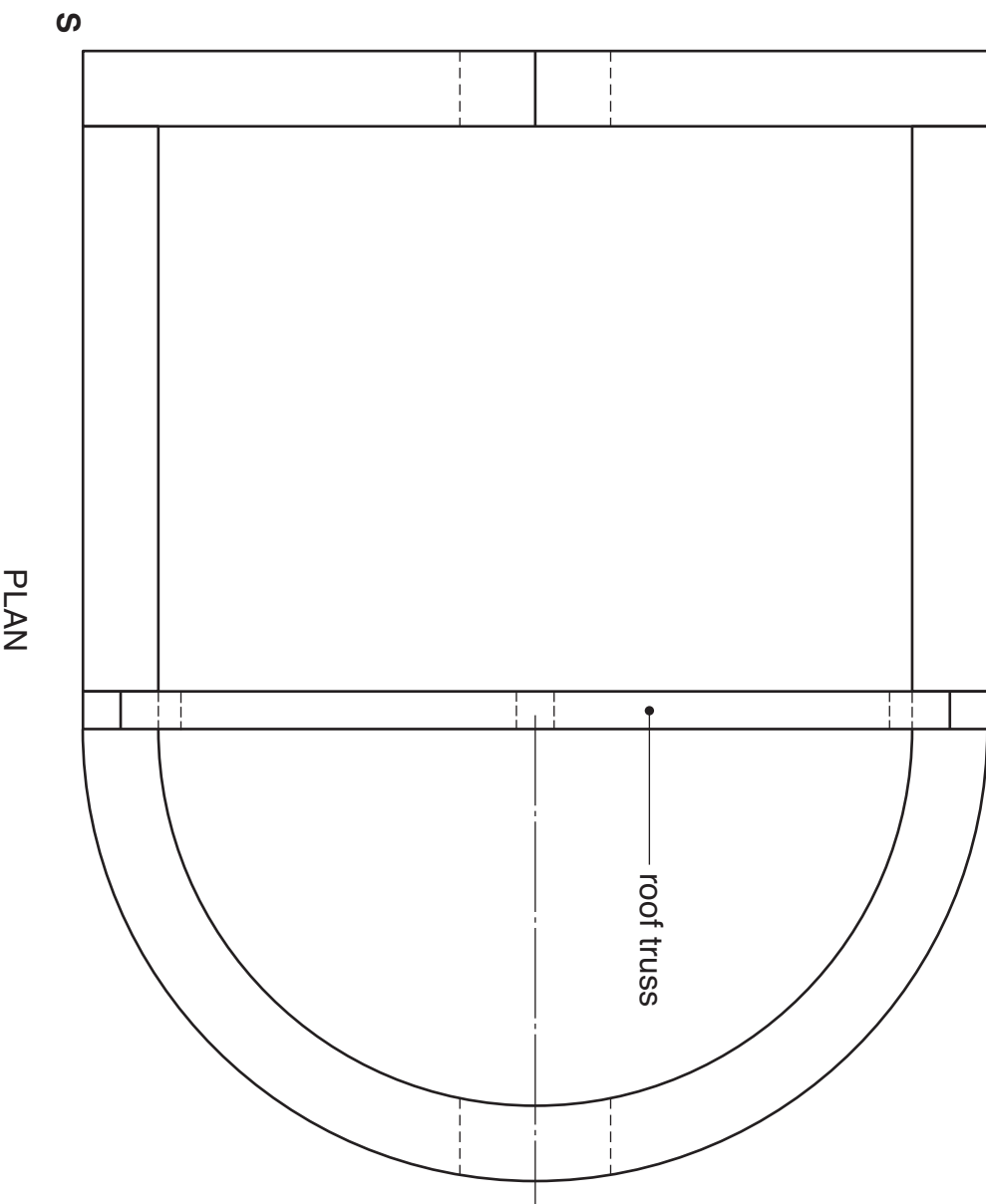
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Section B

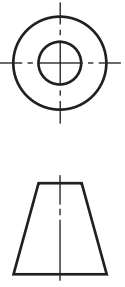
Three views of an old bothy under restoration are shown. There is one roof truss in place. Draw, to the same scale, a Planometric view of the bothy and truss, starting at the given corner, S, on the following page.

Do not show hidden detail. (20 marks)

Draw on the following page (Worksheet for Question 13).



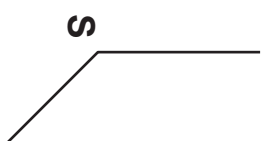
[X033/301]



Candidate's Name _____

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Section B



PLANOMETRIC VIEW

| | |
|----------|--|
| <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> | |
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