

STAPLE HERE

FOR OFFICIAL USE

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**X0333/301**

NATIONAL  
QUALIFICATIONS  
2011

WEDNESDAY, 1 JUNE  
9.00 AM – 12.00 NOON

GRAPHIC  
COMMUNICATION  
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	Scottish candidate number	Number of seat		
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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 8, 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
1	
2	
3	
4	
5	
6	
7	
Section A Total	

**EITHER**  
**OR**

8	
9	
10	
11	
12	
13	
Section B Total	

<b>Total Marks A + B</b>	
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**[BLANK PAGE]**

*A supplementary page is included at the end of Section A for use if extra space is required.*

Marks

2

(a) State the **term** used to describe the small annotated sketches used in the initial design stage of a desk top publishing document. Marks

1 Describe, using sketches if required, the following desk top publishing terms.

Page orientation .....

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Rule .....

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..... 1

(b) State the **term** used to describe the full size manually produced colour document that would be presented to the client prior to electronic production of a desk top published document. 1

..... 1

3

(a) A range of drawing types are used in industry within the categories *Preliminary*, *Production* and *Promotional*. (2)

(i) State the category that an orthographic drawing, showing dimensions and tolerances would be in. 1

Category .....

(ii) State the purpose of this type of drawing. 1

Purpose .....

(b) State a type of *Promotional* graphic commonly used in marketing. 1

Graphic .....

4

(a) Orthographic views created in a CAD package are drawn in **2D**. State **two types** of views that would be drawn in **2½ D**. (3)

View 1 .....

View 2 .....

(b) State the computer hardware that allows: 1

(i) drawings and text to be sent accurately to another computer; 1

Hardware .....

(ii) existing photographs to be captured and inserted into a desk top published document; 1

Hardware .....

(iii) production of a hard copy of a word processed document. 1

Hardware .....

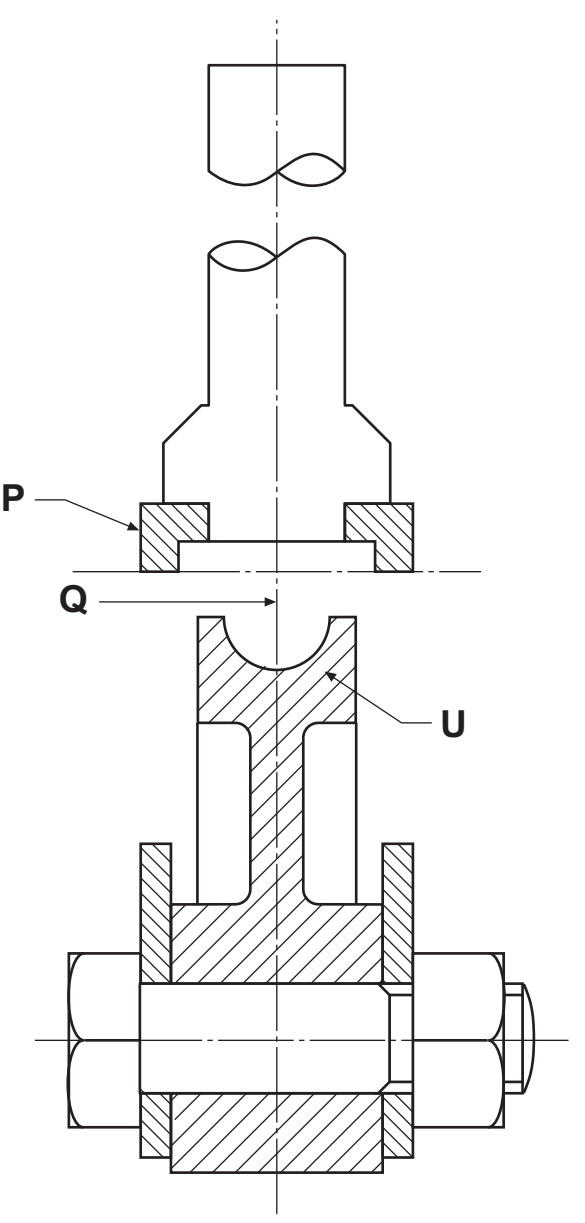
..... 1

(7)

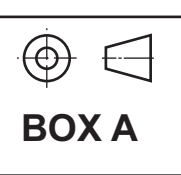
(5)

5

The engineering drawing, including the title block, shown opposite is drawn to **British Standards**.



	5	
	4	
	3	
	2	
	1	



(a) State the British Standard symbol shown in **Box A**.  
..... 1

(b) State the further five items of information that should be included within the given title box to conform to **British Standards**.  
1 ..... 2 .....  
3 ..... 4 .....  
5 ..... 5

(c) State the **British Standard** type of sectional view created by:  
**X-X** ..... 1  
**Y-Y** ..... 1

(d) The incomplete list below gives **either** the Description **or** the Application of the British Standard line **types** indicated on the drawing shown on the opposite page. State the Description **or** the Application of each line **type** in order to complete the list. A completed example is given for **P**.

**P** Description: **Thick, continuous**  
Application: **Visible edges and outlines**

**Q** Description: ..... 1  
Application: **Centre lines, lines of symmetry**

**R** Description: **Continuous thin straight with zigzags**  
Application: ..... 1

**S** Description: ..... 1  
Application: **Hidden outlines and edges**

**T** Description: ..... 1  
Application: **Cutting planes**

**U** Description: **Continuous thin**  
Application: ..... 1

6

(a) State the Illustration and Presentation terms described below.

Marks

(i) A colour gradually blending into another colour.

Term ..... 1

(ii) An area of white to show reflected light.

Term ..... 1

(b) Describe **tonal scale**.

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..... 1

(c) Layering is a feature available in some CAD packages.

State **two** advantages that could be gained when using this feature.

Advantage 1 .....

..... 1

Advantage 2 .....

..... 1

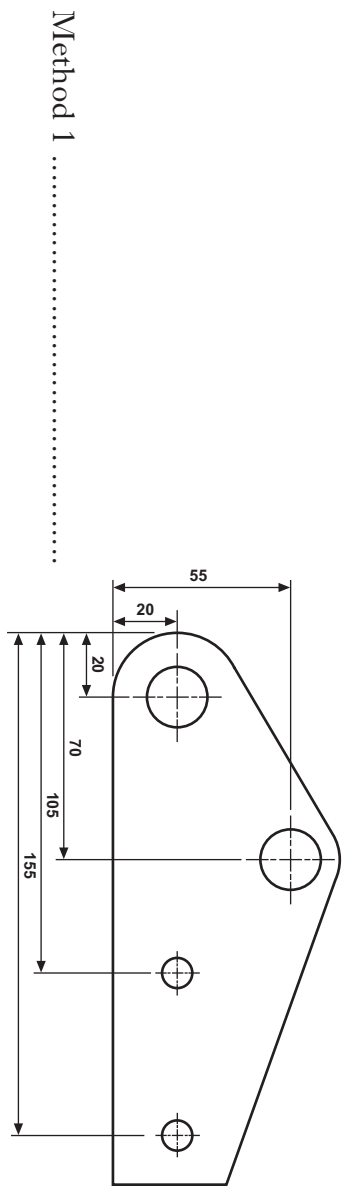
(5)

7

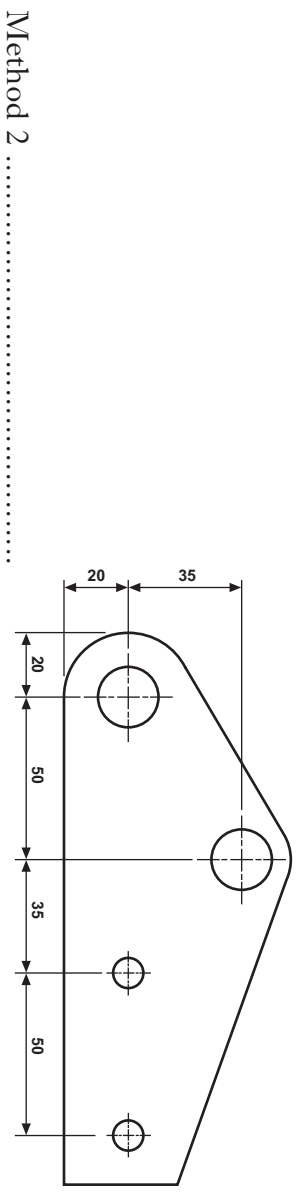
Three methods of dimensioning the position and diameter of holes on a plate are shown below.

Marks

(a) State the British Standard **term** for each method.

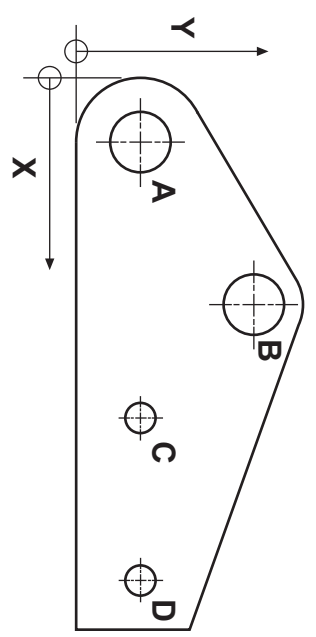


Method 1 ..... 1



Method 2 ..... 1

Hole	X	Y	Ø
A	20	20	20
B	70	55	20
C	105	20	10
D	155	20	10



Method 3 ..... 1

(b) (i) State an advantage of dimensioning using Method 1 over Method 2.

.....

..... 1

(ii) State an advantage of dimensioning using Method 3 over Method 1 and Method 2.

.....

..... 1

(5)

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

**Number each answer clearly.**

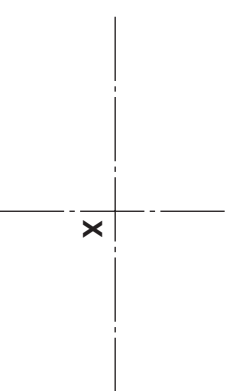
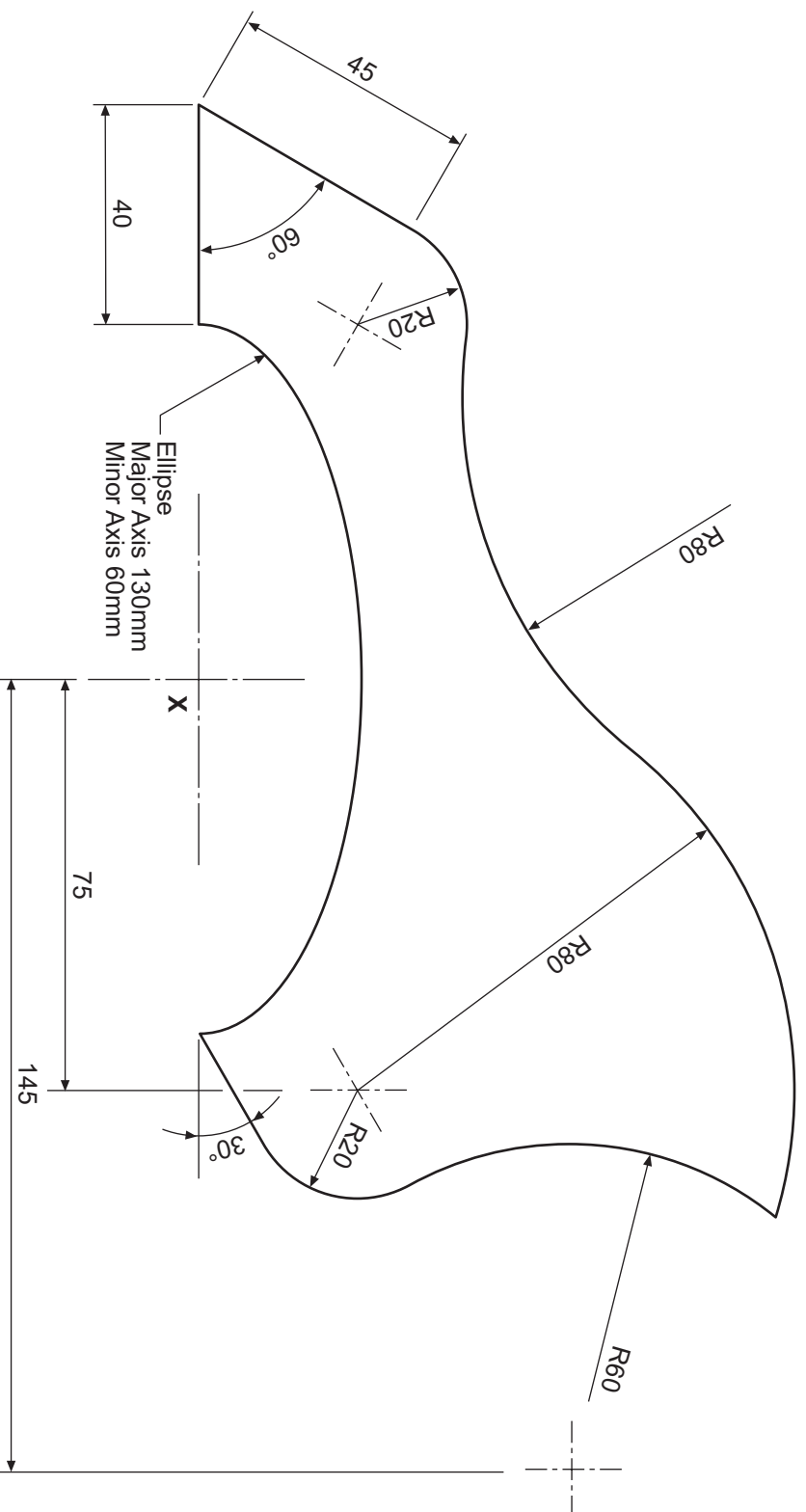
An outline of a guitar scratch plate is shown.

Draw the outline of the scratch plate 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**

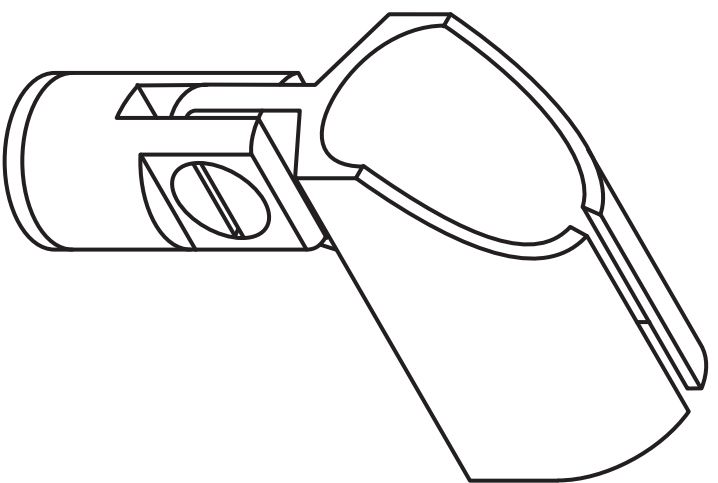
a	
b	
c	
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k	
l	
m	
n	

Orthographic views of the five parts that make up a microphone holder are given. A pictorial view is also shown.

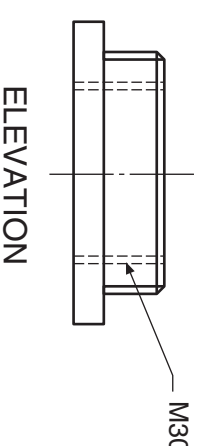
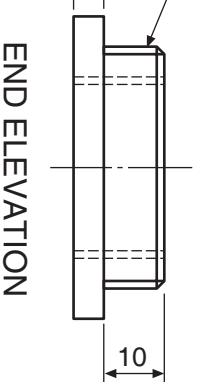
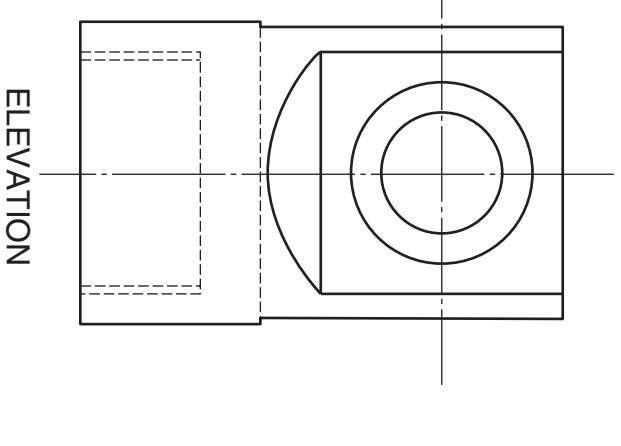
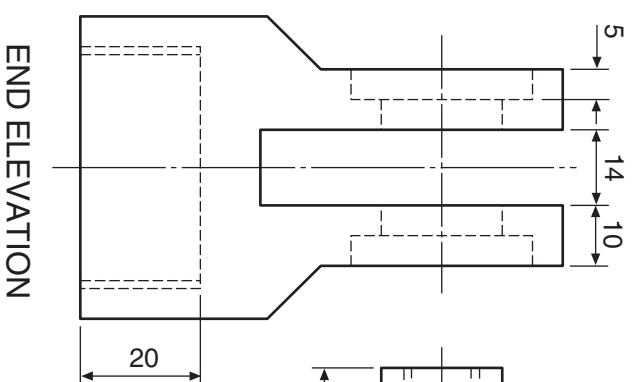
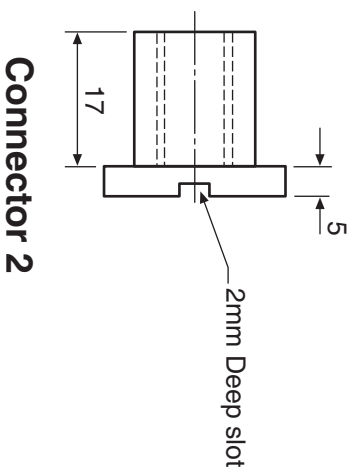
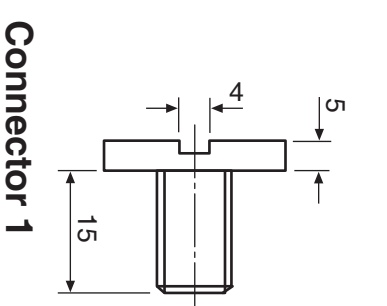
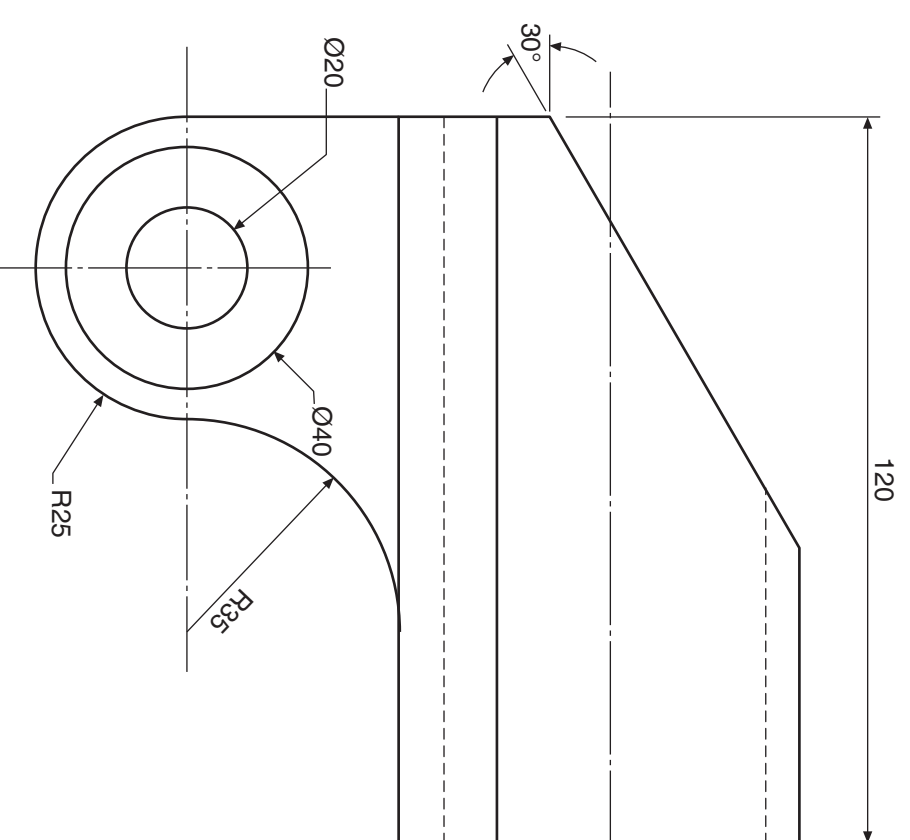
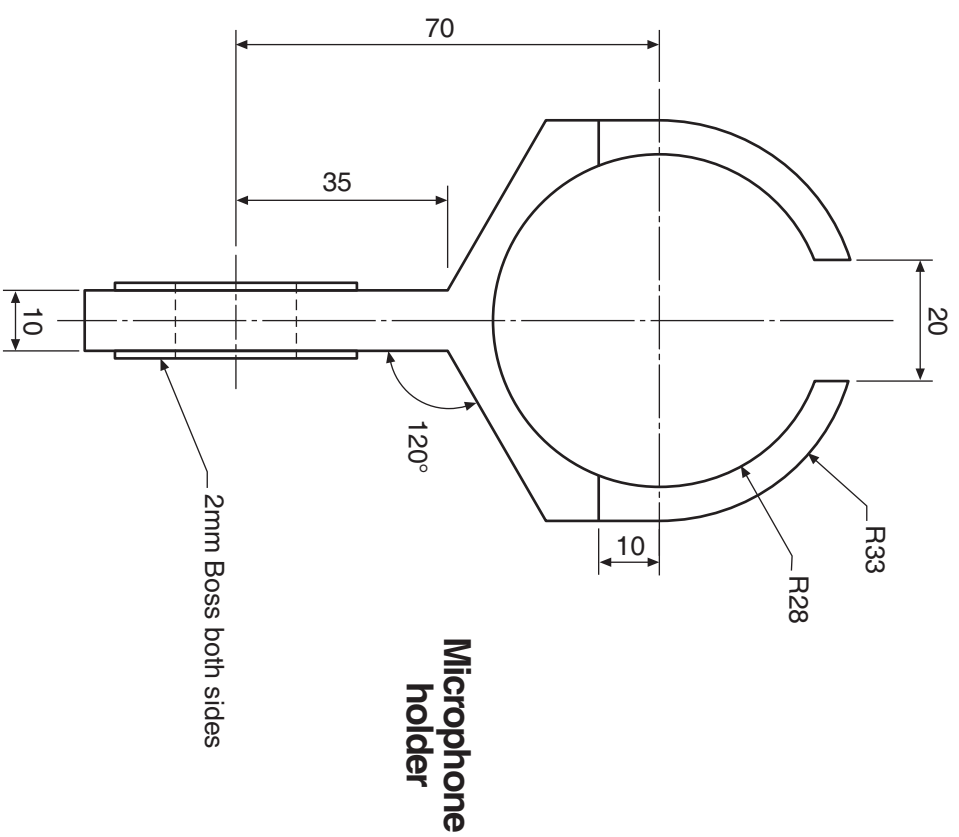
**Draw**, in the position indicated on **Worksheet 9**:

- (a) the completed elevation of the assembled components;  
**Show hidden detail.**
- (b) the sectional end elevation on **A-A**.  
**Do not show hidden detail.**  
**Do not section the two connectors.**

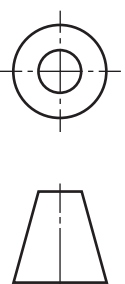
(30 marks)



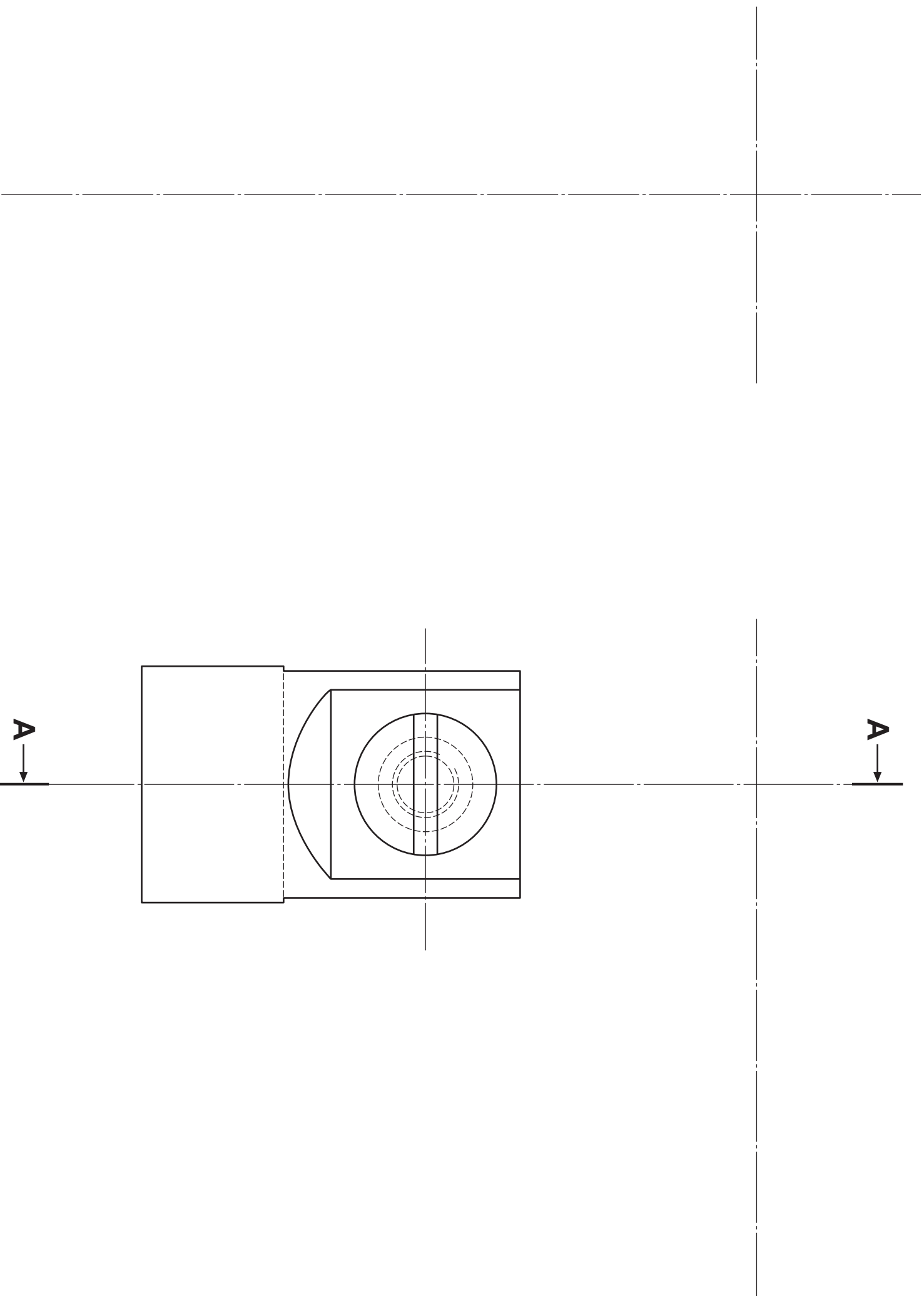
PICTORIAL VIEW



NOT TO SCALE

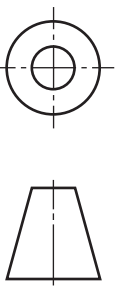






SECTIONAL END ELEVATION A-A

ELEVATION



[X033/301]

<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>	

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

Three views of an outdoor festival stage along with a pictorial view are given.

Draw a 2-point measured perspective view of the stage.

The Spectator Point (SP), Plane of Projection (PP), Ground Line (GL),

Eye Level (EL) and plan to the same scale are given.

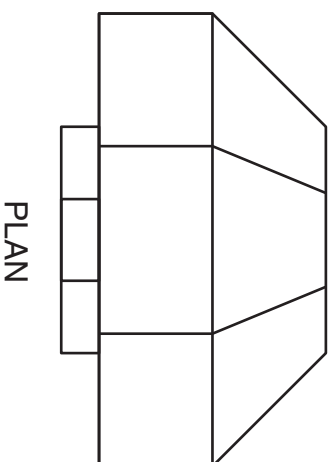
Do not show hidden detail.

(20 marks)

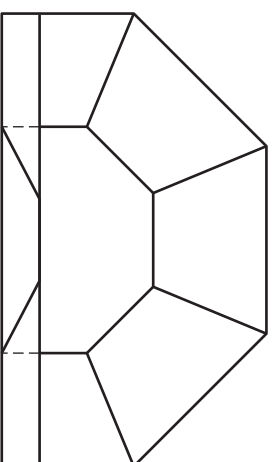
EL

GL

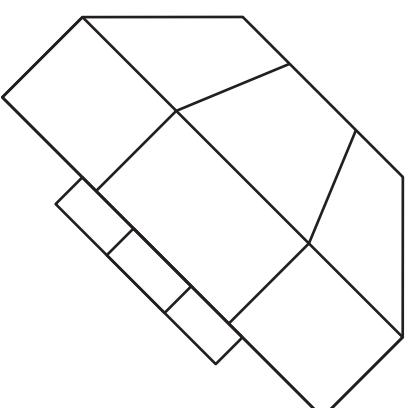
PP



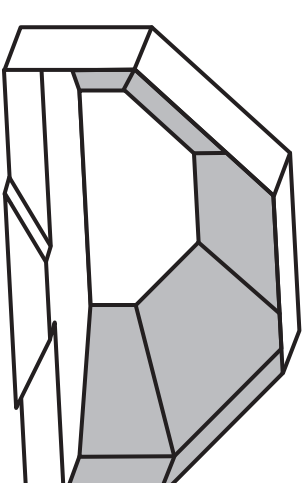
PLAN



ELEVATION

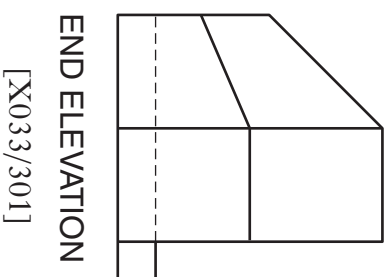


SP



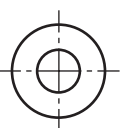
Pictorial View

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



END ELEVATION

[X033/301]

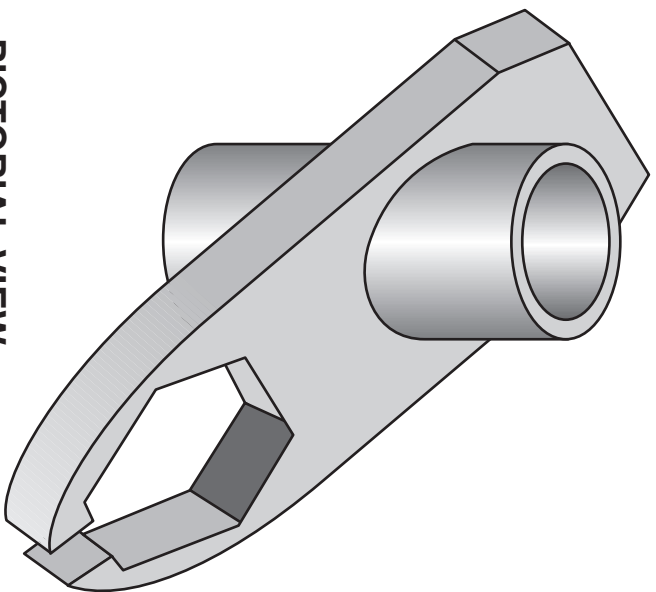


A complete elevation and incomplete auxiliary plan of a shower support bracket are given. A pictorial view of the bracket is also shown.

**Draw**, to the same scale:

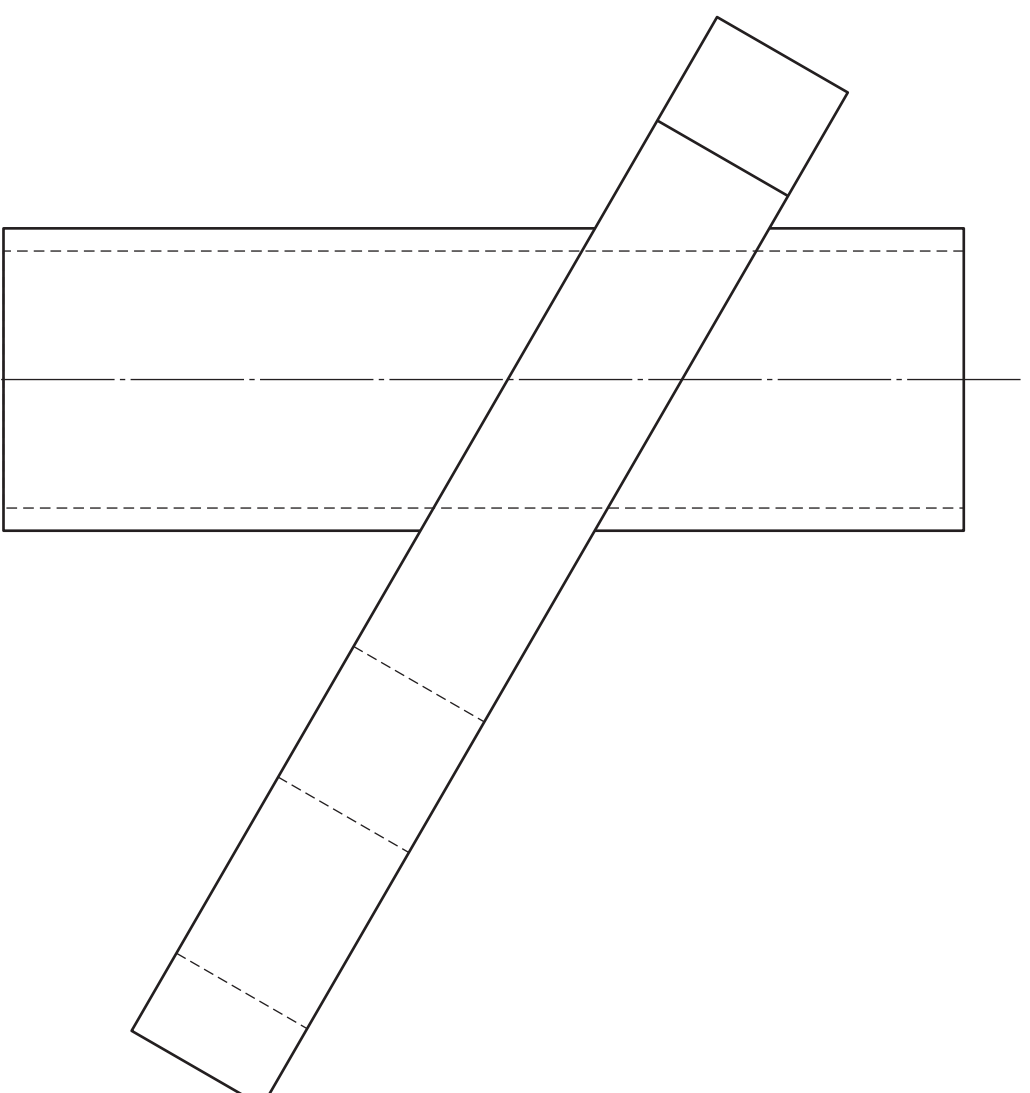
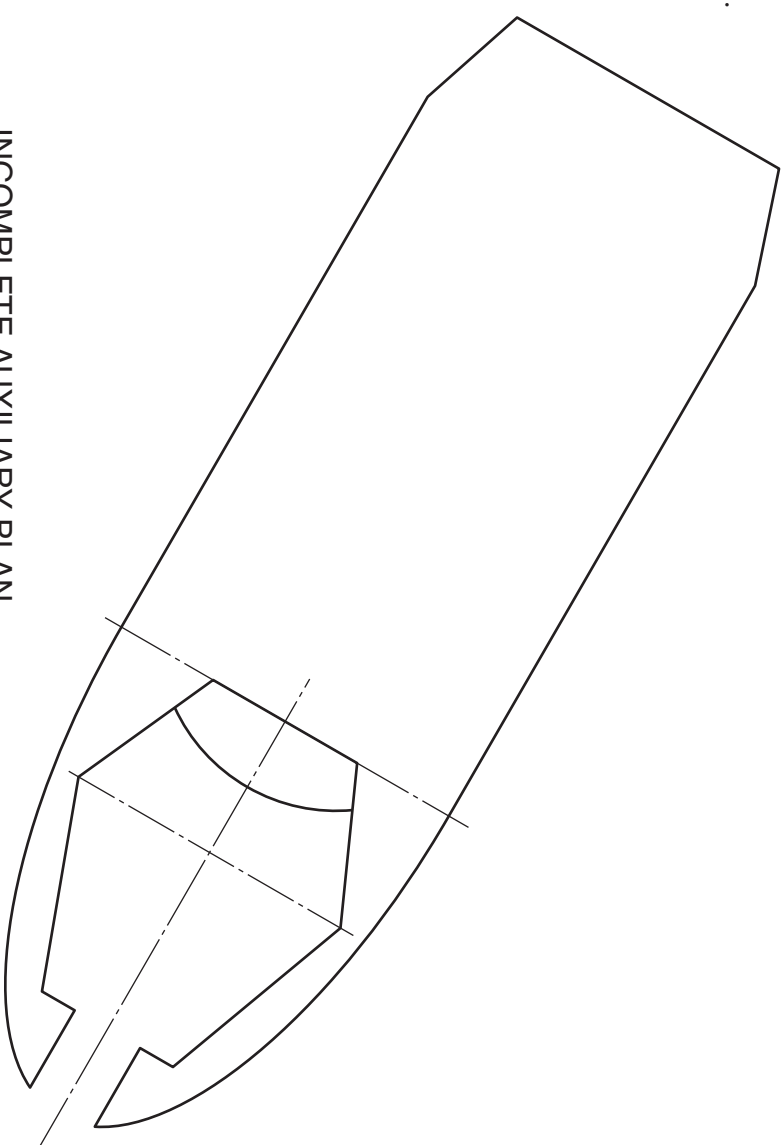
- (a) the completed auxiliary plan;
  - (b) the end elevation in the position indicated.
- Do not show hidden detail.**

**(20 marks)**



**PICTORIAL VIEW**

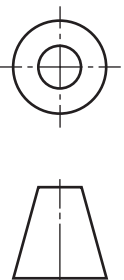
**INCOMPLETE AUXILIARY PLAN**



**ELEVATION**

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

[X033/3011]



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

END ELEVATION \_\_\_\_\_

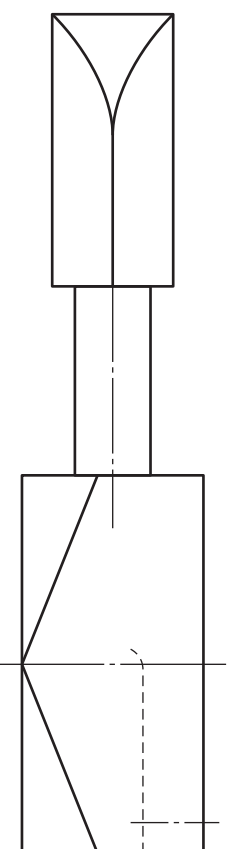
Section B

Three views of part of a guitar machine head are given.

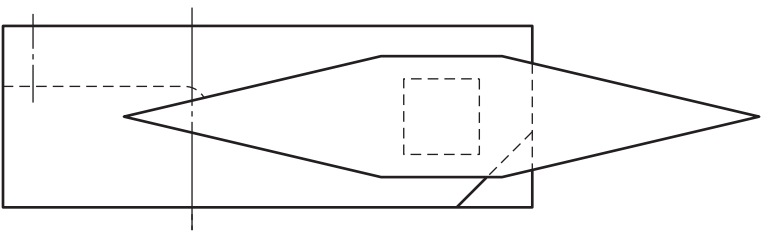
Draw an isometric view of the machine head using the starting point at X.

Do not show hidden detail.

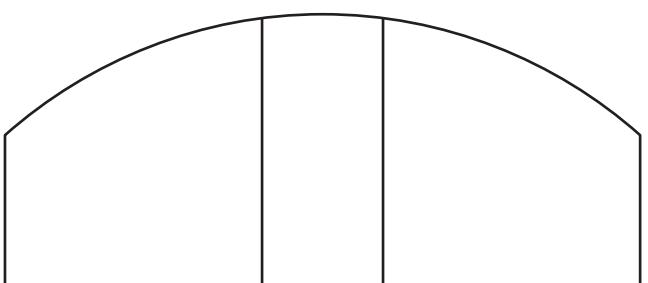
(20 marks)



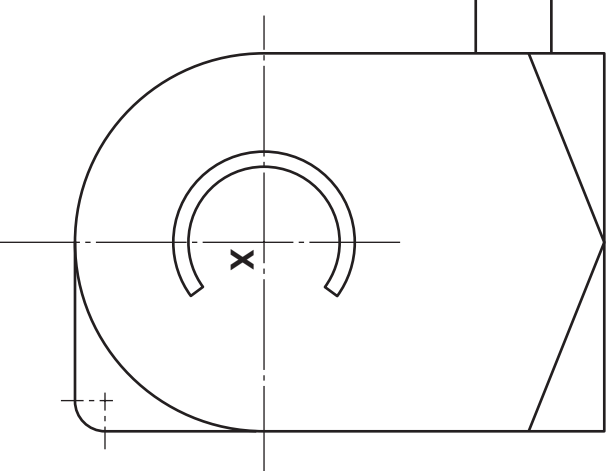
PLAN



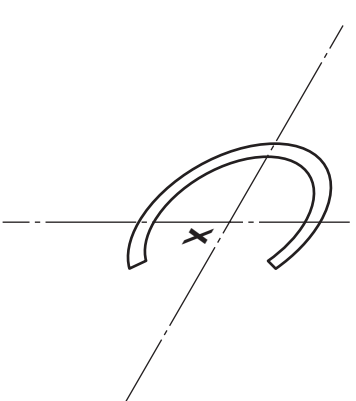
END ELEVATION



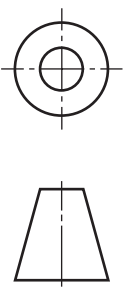
ELEVATION



ISOMETRIC VIEW



a	
b	
c	
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k	
l	
m	
n	



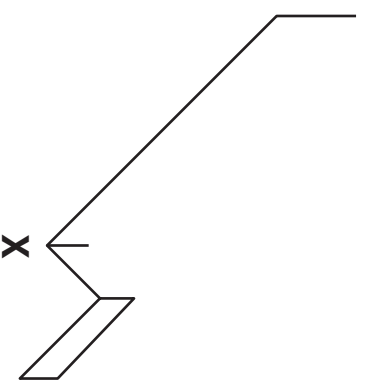
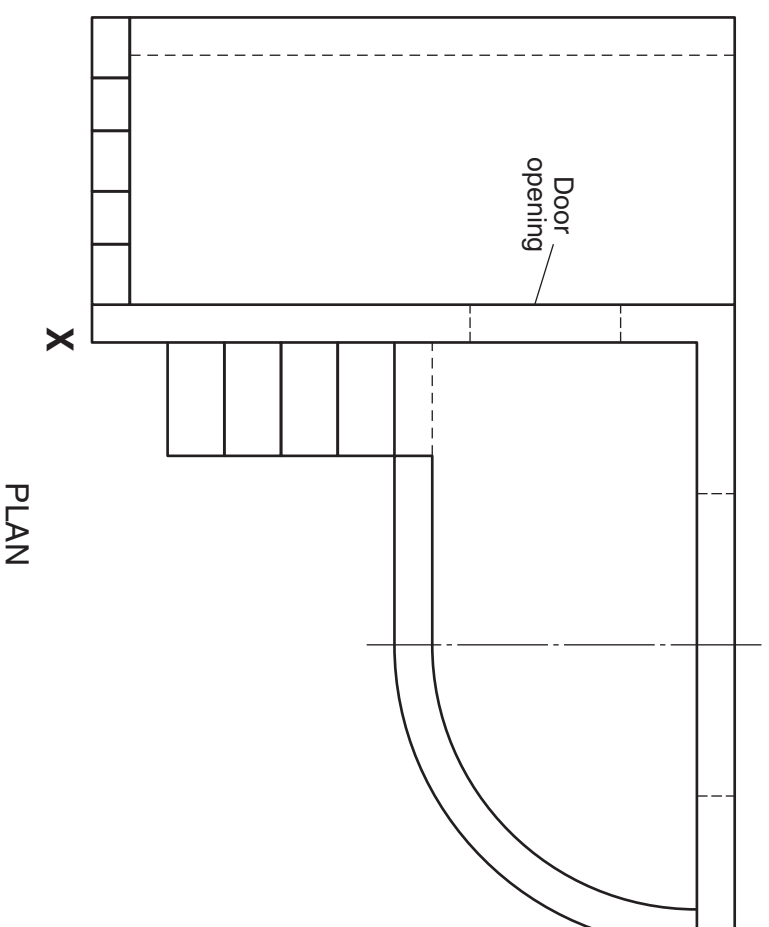
The elevation and plan of a set design for an opera are given.

Draw full size a planometric view of the set design.

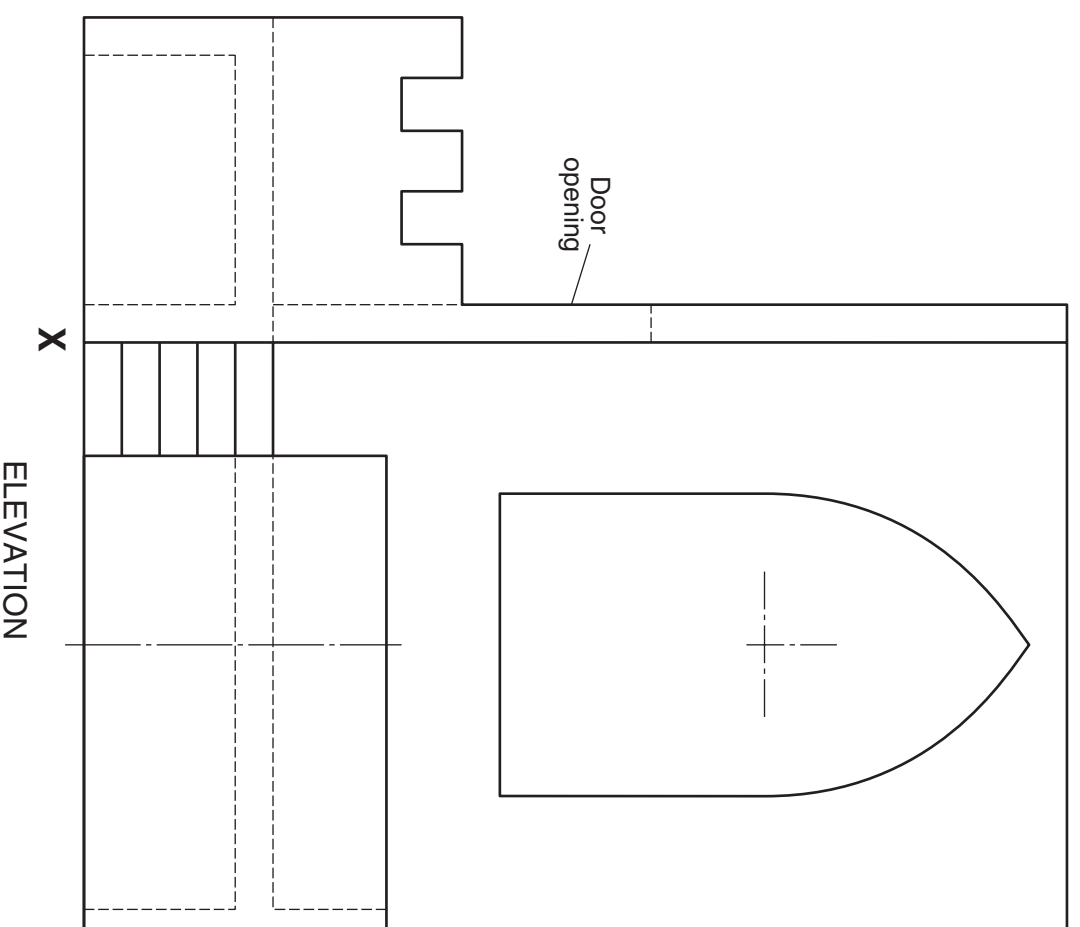
Use the corner X as a starting point.

Do not show hidden detail.

(20 marks)

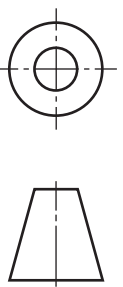


PLANOMETRIC VIEW



ELEVATION

a	
b	
c	
d	
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k	
l	
m	
n	



**[BLANK PAGE]**