

FOR OFFICIAL USE

ANSWER

X033/1 2/01

NATIONAL  
QUALIFICATIONS  
2013

TUESDAY, 21 MAY  
9.00 AM - 12.00 NOON

HIGHER  
GRAPHIC  
COMMUNICATION

**Fill in these boxes and read what is printed below.**

Full name of centre

Town

Section A Total

	7		
	8		
	9		
	10		
	11		
	12		
Section B Total			

Total Marks A + B

EITHER  
OR

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).



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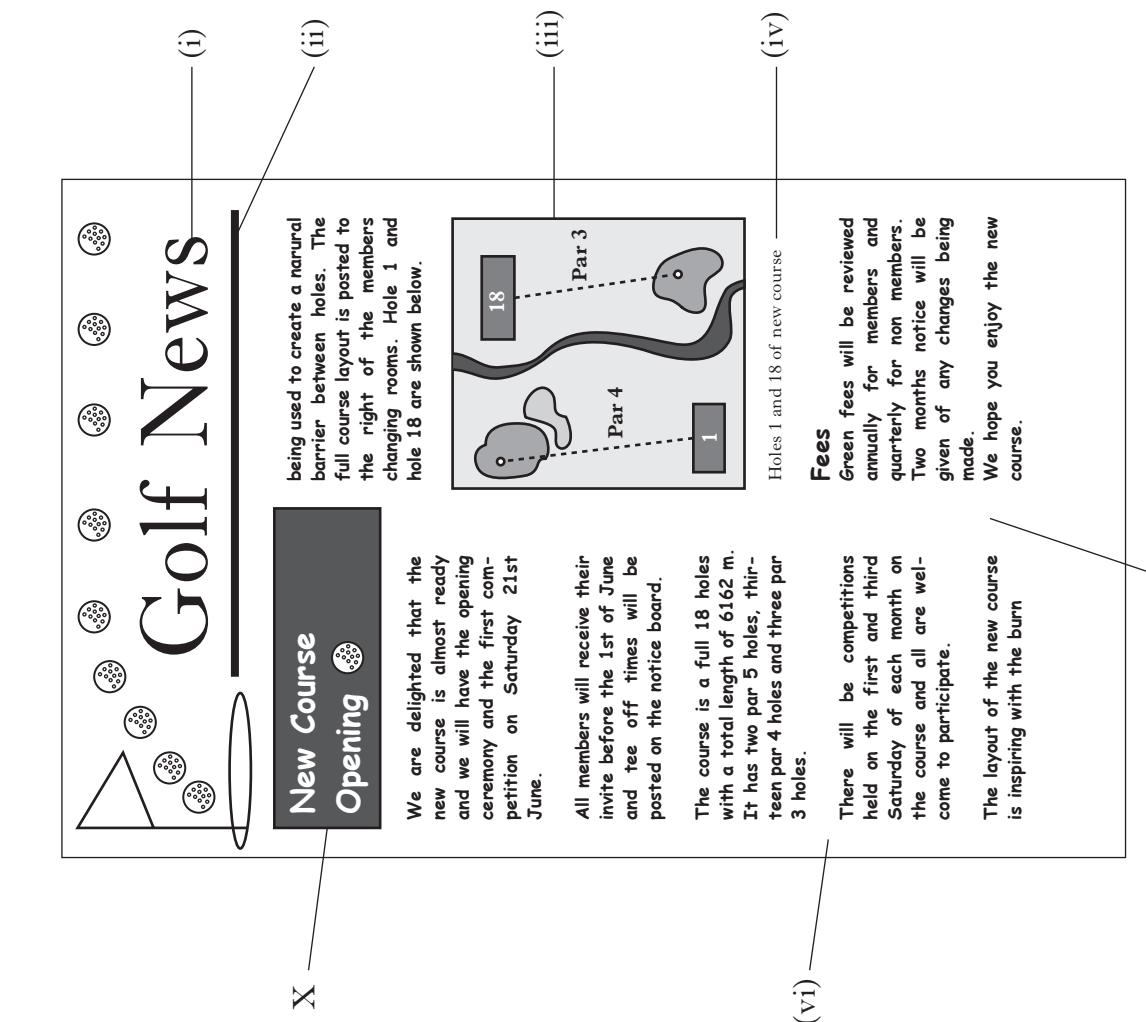
**Section A**

The first issue of a golf club newsletter produced on a DTP package is shown below.

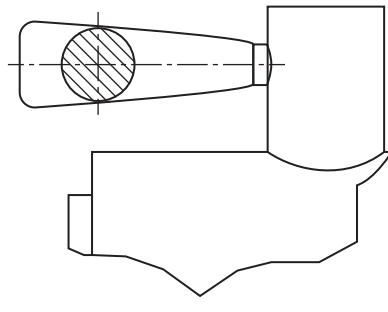
Marks

**British Standard** conventions are used by the engineering and building industry.

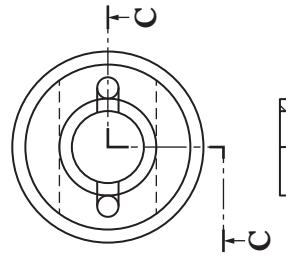
Marks

**5**

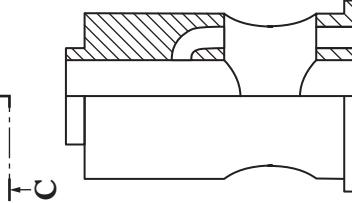
(a) State the type of sectional view indicated in each drawing.



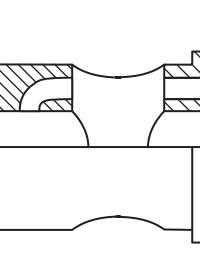
(i)



(ii)



(iii)



(iv)

(v) The layout of the new course is inspiring with the burn

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

(i) ..... (ii) .....

2

(iii) ..... (iv) .....

2

(v) ..... (vi) .....

2

(b) According to **British Standards** the third angle projection symbol is found in the title block of orthographic drawings.

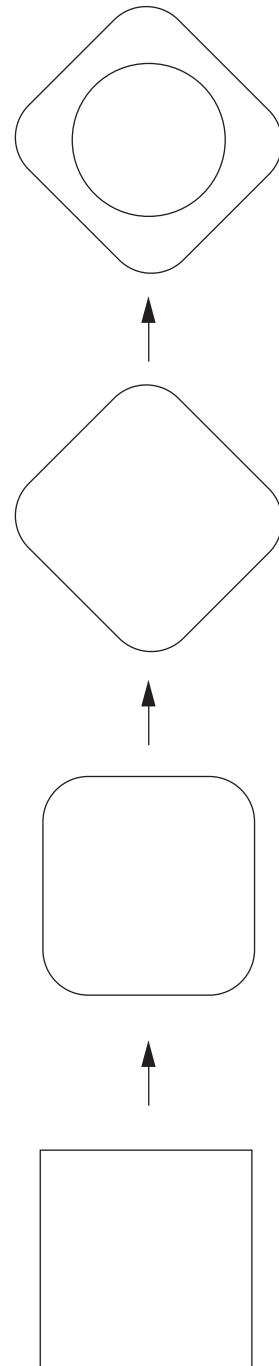
- List **four** other pieces of information that a title block should contain.
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## Section A

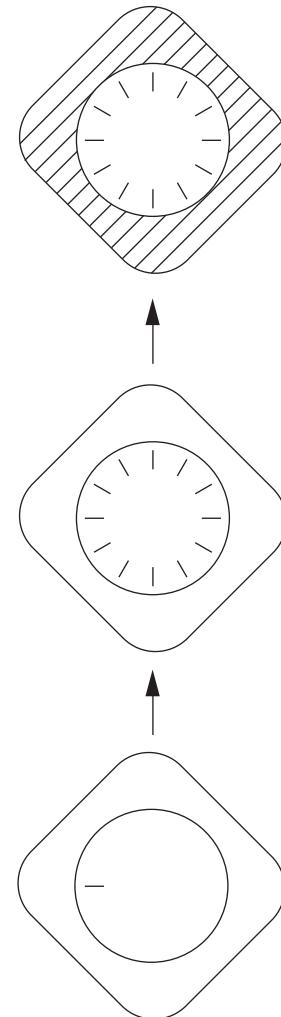
6

A company of clock makers are using a CAD package to produce working drawings of their new range of clocks.

(a) State the single CAD command used in each stage of the clock design below.



Command \_\_\_\_\_



Command \_\_\_\_\_

6

(b) The clock making company are considering purchasing a colour inkjet or a colour laser printer to produce hard copies of their designs.

State **one** advantage of each type of printer.

Colour Inkjet Printer .....

1

Colour Laser Printer .....

1 (8)

## SUPPLEMENTARY PAGE

## Section A

Use this page if extra space is required for answers to Questions 1 to 6.

**Number each answer clearly.**

7

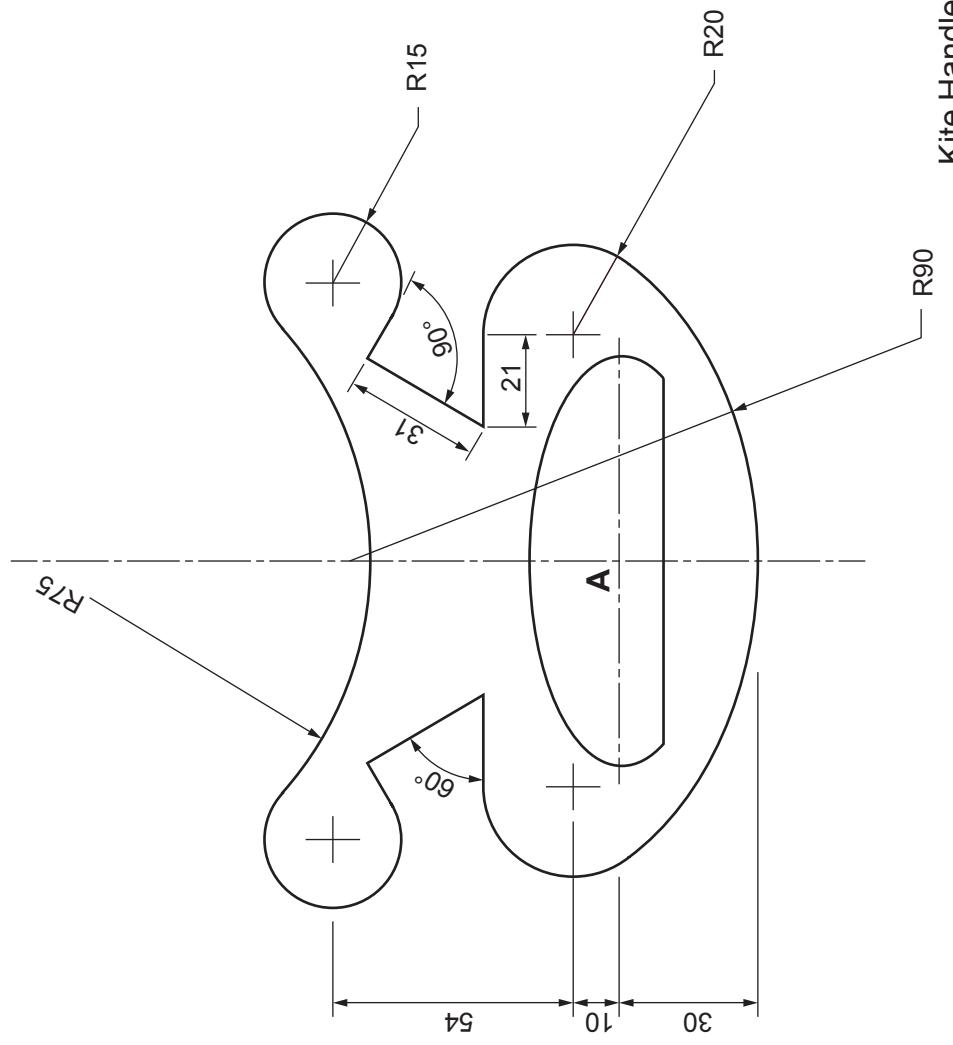
**Section B**

The outline of a kite handle is shown.

Draw the outline using the given start, to a scale of 1:1.

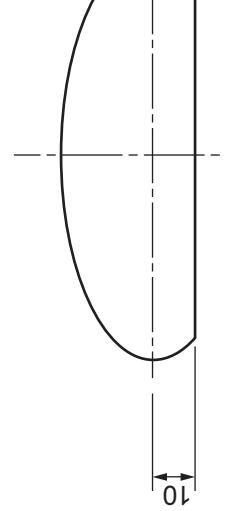
Show clearly the centres used to draw all the arcs.

Do not show dimensions.  
(10 marks)



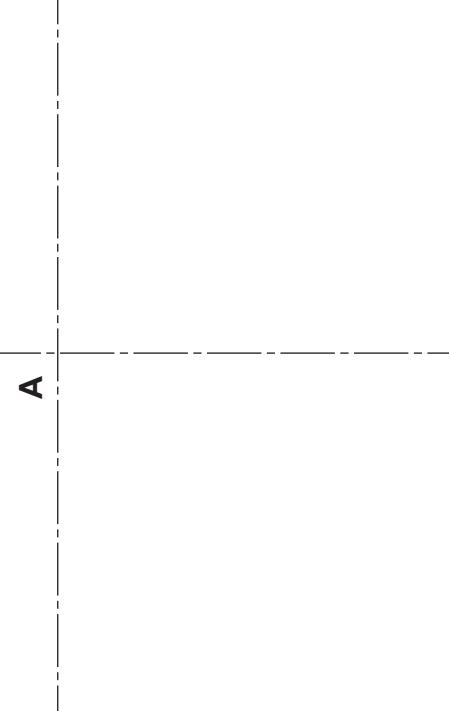
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Kite Handle  
**(NOT TO SCALE)**



Handle Detail  
Part Ellipse

**(NOT TO SCALE)**



A

## Section B

8

The elevation and end elevation of an airport security system are given.

**Draw** a measured 2-point perspective of the security system.

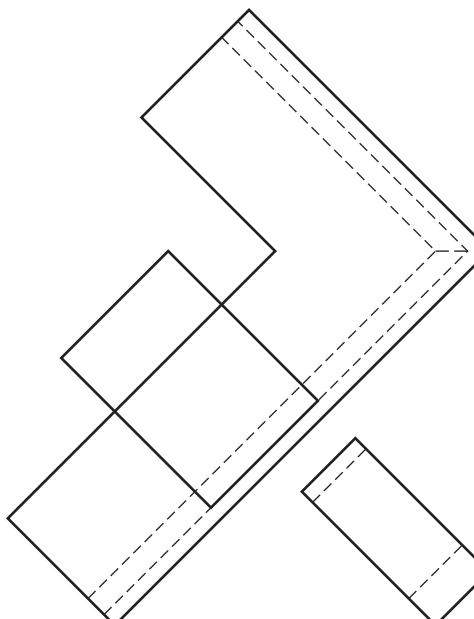
The Spectator Point (**SP**), Plane of Projection (**PP**), Ground Level (**GL**), Eye Level (**EL**) and plan to the same scale are given.

Do not show hidden detail. (20 marks)

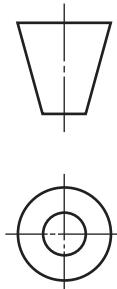
EL

5

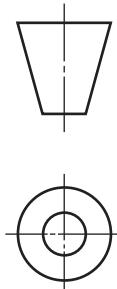
Pp



PLAN



+



## END ELEVATION

ELEVATION

[X033/12/01]

Section B

The elevation and plan of a wall light and shade are given.

**Draw**, in the positions indicated:

- (a) the end elevation;
  - (b) an auxiliary plan;
  - (c) a symmetrical half

**Do not show hidden detail.**

a part of the light starting at point X.

(20 marks)

This orthographic view shows a mechanical part. At the top is a horizontal rectangular base plate. Below it is a central circular feature. A vertical slot is positioned in the center of the circle, intersecting its horizontal axis. The word "PLAN" is written vertically along the right edge of the drawing.

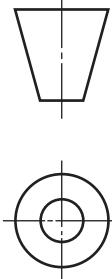
PLAN

1

## AUXILIARY PLAN



HALF DEVELOPMENT



The diagram illustrates a shaded region bounded by a trapezoid and a rectangle. The trapezoid has vertices at (0, 0), (1, 0), (2, 1), and (0, 1). The rectangle is positioned above the trapezoid, with its bottom edge at  $y = 1$ . The rectangle's width is 1 unit, and its height is 2 units, extending from  $x = 1$  to  $x = 3$  and from  $y = 1$  to  $y = 3$ . The area between the trapezoid and the rectangle is shaded.

EVALUATION

## END ELEVATION

10

**Section B**

10

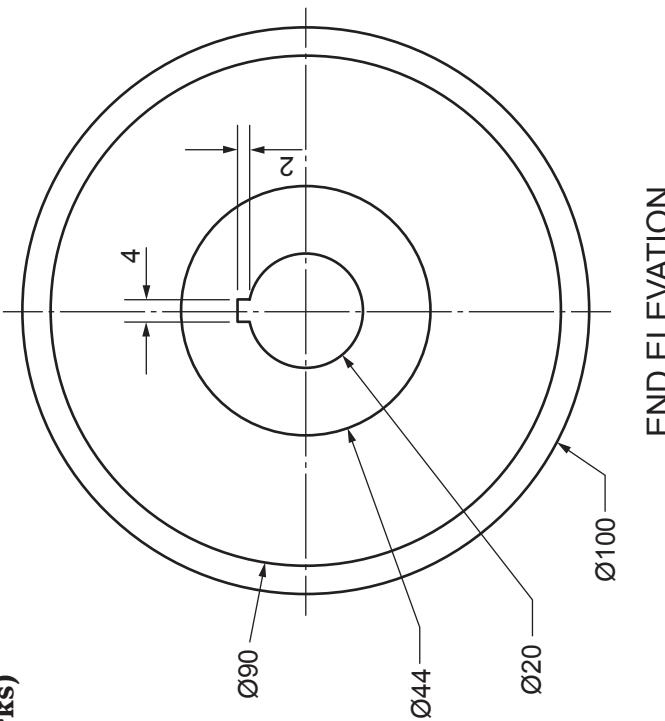
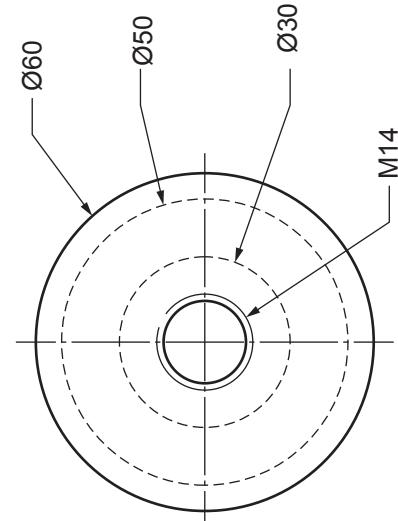
The orthographic views of parts of a pulley belt mechanism are shown.

Draw, in the positions indicated on **Worksheet Question 10**:

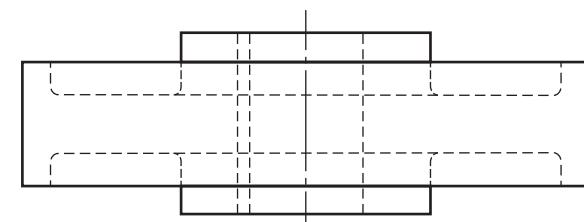
- (a) the end elevation of the assembled components;  
**Show all hidden detail.**

- (b) the sectional elevation of all the assembled components on A-A.  
**(30 marks)**  
**Do not show hidden detail.**

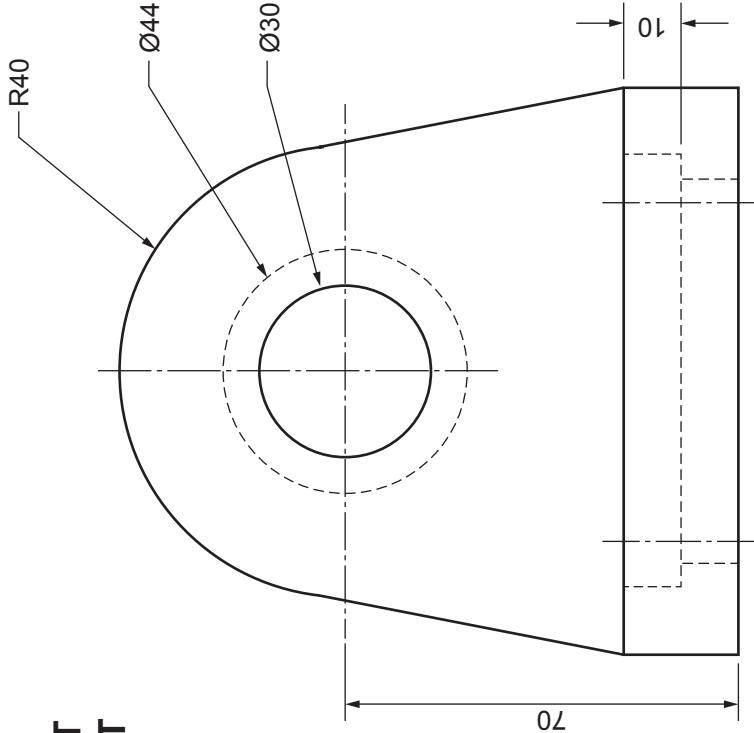
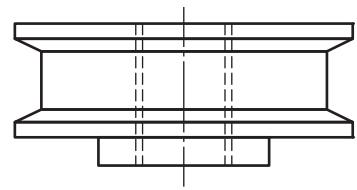
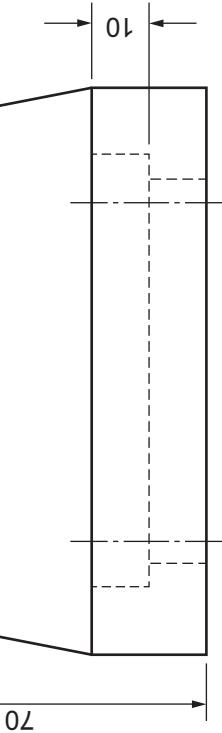
**Note:** Do not section drive shaft or key.  
 Fillets should be drawn freehand.

**BELT DRIVE****NOT TO SCALE****PULLEY**

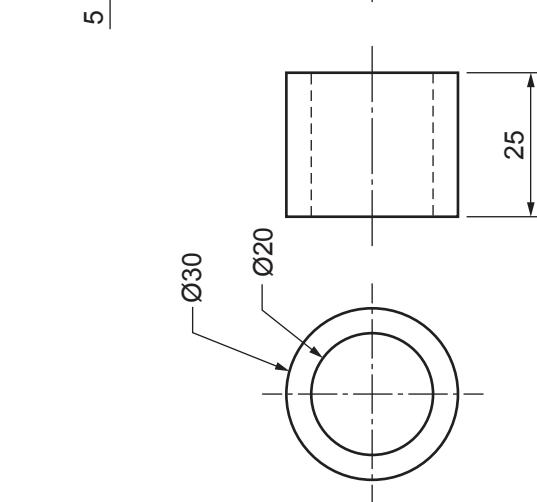
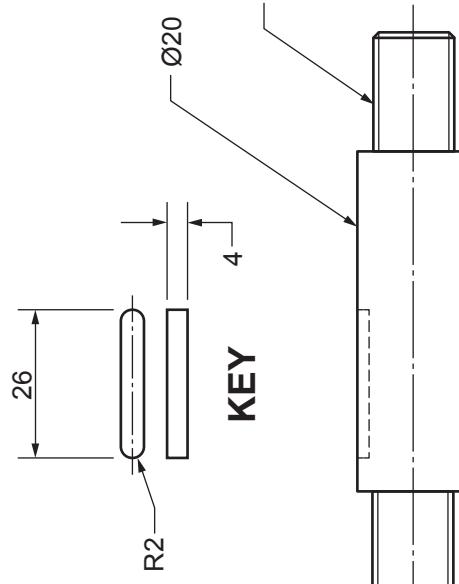
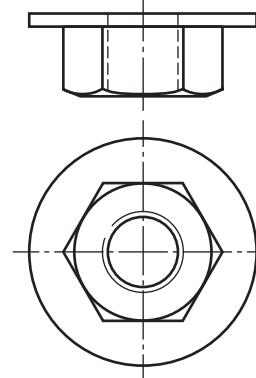
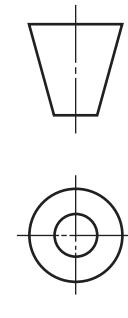
ELEVATION      END ELEVATION



ELEVATION      END ELEVATION

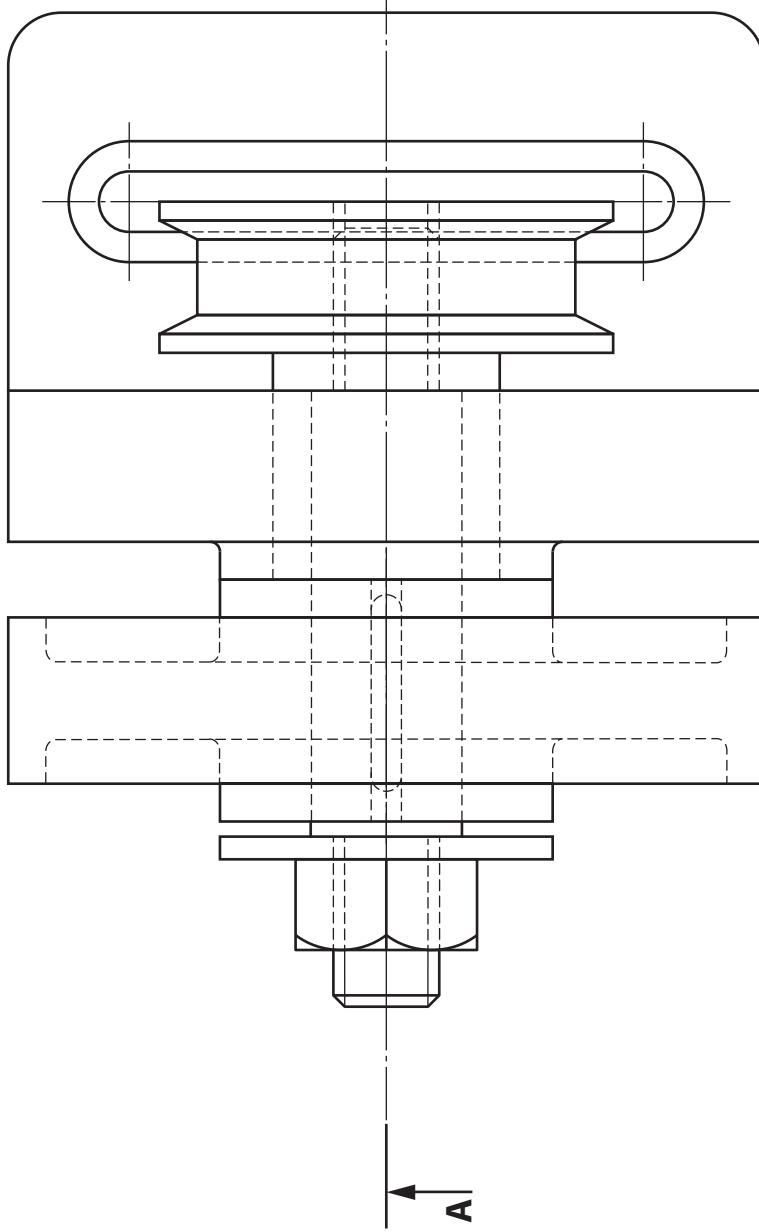
**SUPPORT  
BRACKET**

ELEVATION

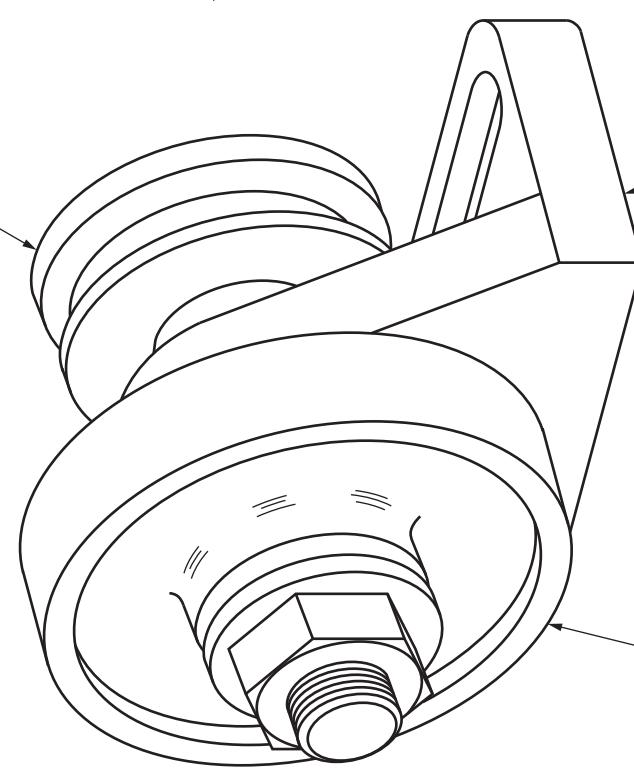
**BUSH****DRIVE SHAFT****M14 NUT AND  
WASHER**

**10 WORKSHEET QUESTION 10**

**Section B 10**



PLAN

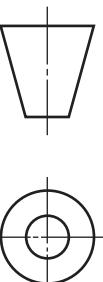


SUPPORT BRACKET  
BELT DRIVE

PICTORIAL VIEW  
(Not to scale)

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

END ELEVATION



11

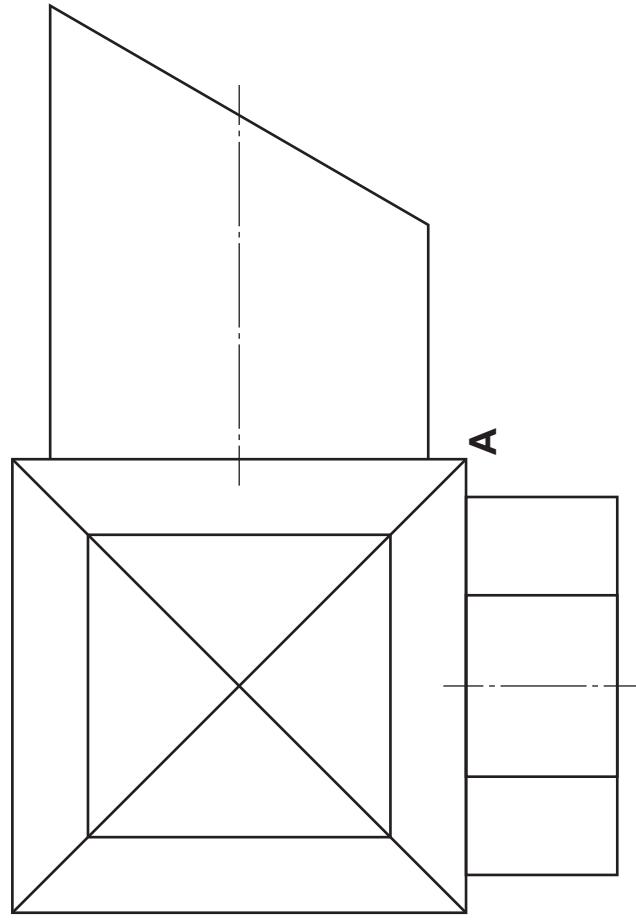
**Section B****Candidates should attempt EITHER Question 11 OR Question 12**

The plan, elevation and end elevation of a child's play tunnel are given.

Draw, to the same scale and ignoring the thickness of the material:  
a cabinet oblique view of the play tunnel using the given start at **A**.

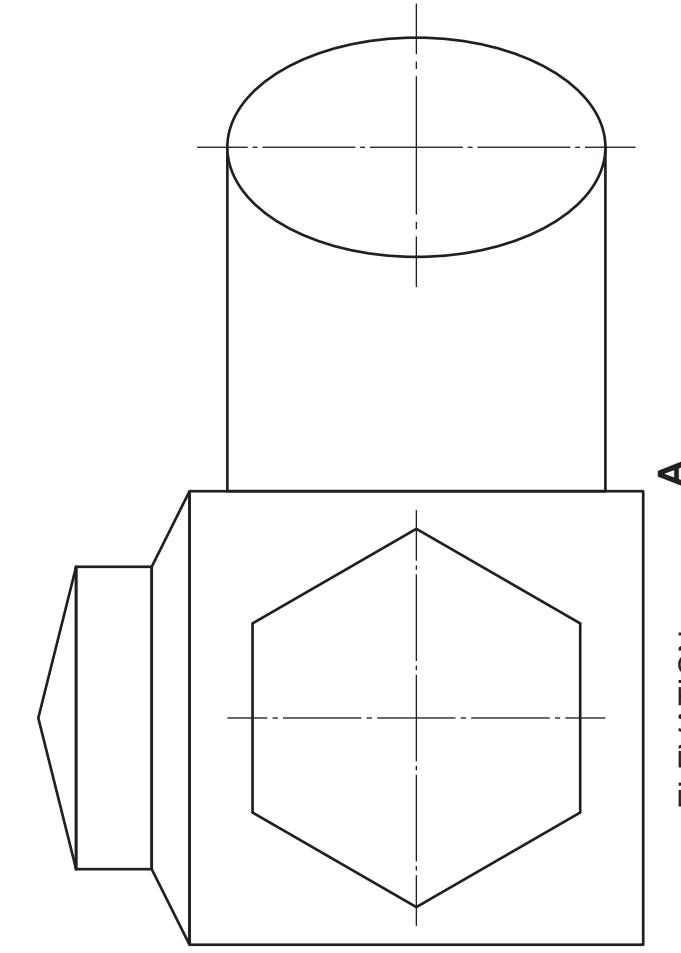
**Do not show hidden detail.**

**Lines drawn at  $45^\circ$  should be drawn half full size.** (20 marks)



PLAN

OBLIQUE

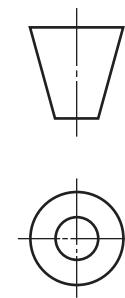


ELEVATION

END ELEVATION

**A**

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



12

**Section B**

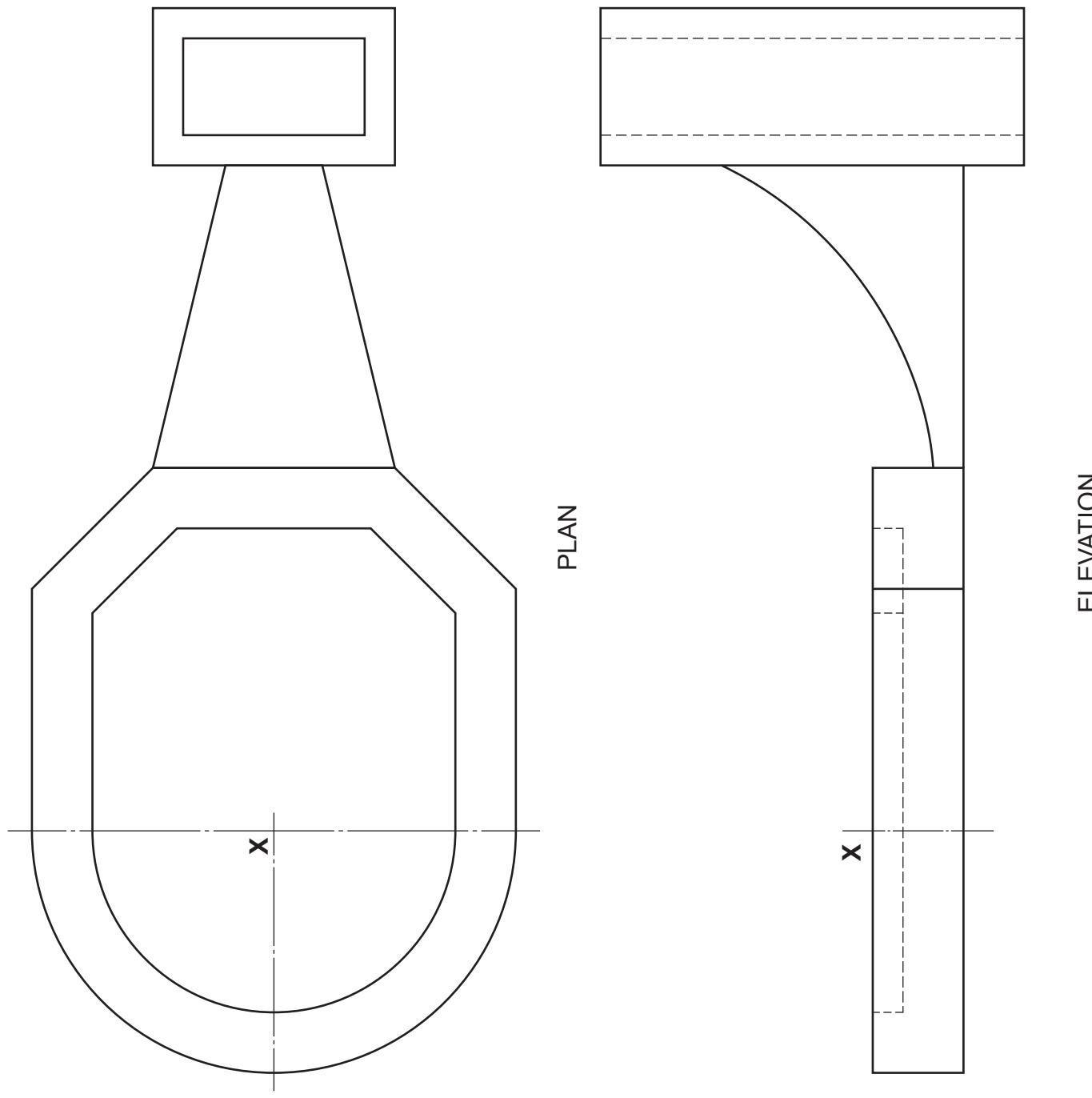
Candidates should attempt EITHER Question 11 OR Question 12

The elevation and plan of a soap dish are given.

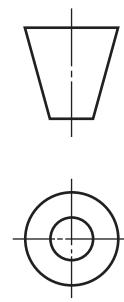
Draw, an isometric view of the soap dish using the given start at X.

**Do not show hidden detail.**

(20 marks)



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



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