

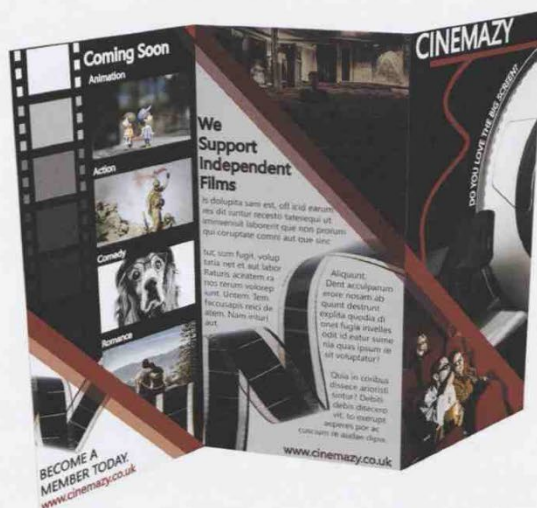
Candidate 4 evidence

MARKS
DO NOT
WRITE IN
THIS
MARGIN

Total marks — 90
Attempt ALL questions

For questions 1 (a) to (f), refer to the information provided on supplementary sheets 1 and 2.

A three-fold leaflet has been created for the independent cinema, Cinemazy.



1. (a) Describe, giving **two** examples, how the graphic designer's use of contrast has enhanced the layouts.

2

- the red text contrasts from the black text to emphasise key information
- the large title contrasts with the smaller main text to help draw attention

- (b) Describe, giving **two** examples, how the graphic designer has created rhythm to enhance the layouts.

2

- the film roll on the side creates rhythm and emphasises the film theme
- the evenly spaced images with titles also create rhythm and emphasise variety

MARKS

DO NOT
WRITE IN
THIS
MARGIN

1. (continued)

- (c) Describe, giving **two** examples, how the graphic designer has used value in the layouts.

2

the designer has used an even mix of value to create a balanced design, seen in the white background and dark images

- (d) Describe, giving **two** examples, how the graphic designer has created depth in the layouts.

2

- the designer has used red, an advancing colour which appears to come off the page
 - the film roll at the bottom overlaps the black box
 - the contrasting/reverse text appear like they are on top
 - drop shadows on the lenses
- (e) Describe, giving **two** examples, how the graphic designer has used alignment in the layouts.

2

- the designer has used a grid to split the design into 3 parts and create balance
 - the designer text wrap to align and balance the body text
 - the designer left justified titles to make them clean
- (f) Explain, giving **one** example, why the graphic designer has used emphasis in the layouts.

1

to draw the viewers attention to important details like the website or the "indipendant" films part

[Turn over]

MARKS
DO NOT
WRITE IN
THIS
MARGIN**1. (continued)**

The graphic designer created the logo for Cinemazy as a vector file and stored it in the cloud.



- (g) (i) Describe **two** advantages of creating the logo in the vector file format. **2**

scalable without the loss of
detail

the smaller file size is suitable
for webpage viewing

- (ii) Describe **two** advantages of cloud storage. **2**

accessible from anywhere allowing
work from home

cloud storage can also allow multiple
users to work on the same file at
once

MARKS

DO NOT
WRITE IN
THIS
MARGIN

1. (continued)

The graphic designer has used cropping to edit the images used in the layouts.



(h) State the name of the crop applied to the images shown above.

2

(i) Image 1 full crop

Image 2 square crop

(ii) Describe the effects that the two types of cropping have created within the layouts.

2

The full crop emphasises the lens
of the camera

The square crop emphasises the dogs
face and removes distracting details

The graphic designer used placeholder text in the preliminary layouts.

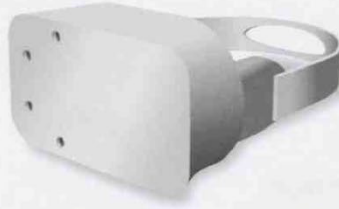
(i) Explain **one** advantage to the graphic designer of using placeholder text.

1

saves time and allows them to
see how big text can be
to be readable

[Turn over

2. A tech company is developing a new virtual reality (VR) headset. A prototype is shown below.



Bottom-up modelling was used to create the VR headset components.

- (a) Describe the process of bottom-up modelling.

2

bottom-up modeling creates each component on its own, individually and has them assembled later once everything is modeled

For questions 2 (b), c (i) and c (ii), refer to the information provided on supplementary sheet 3.

- (b) Explain the purpose of the detail view D.

1

to show how the two parts fit together, easily

- (c) (i) State the name of the type of section shown at A-A.

1

Stepped - section

- (ii) State the name of the type of section shown at C.

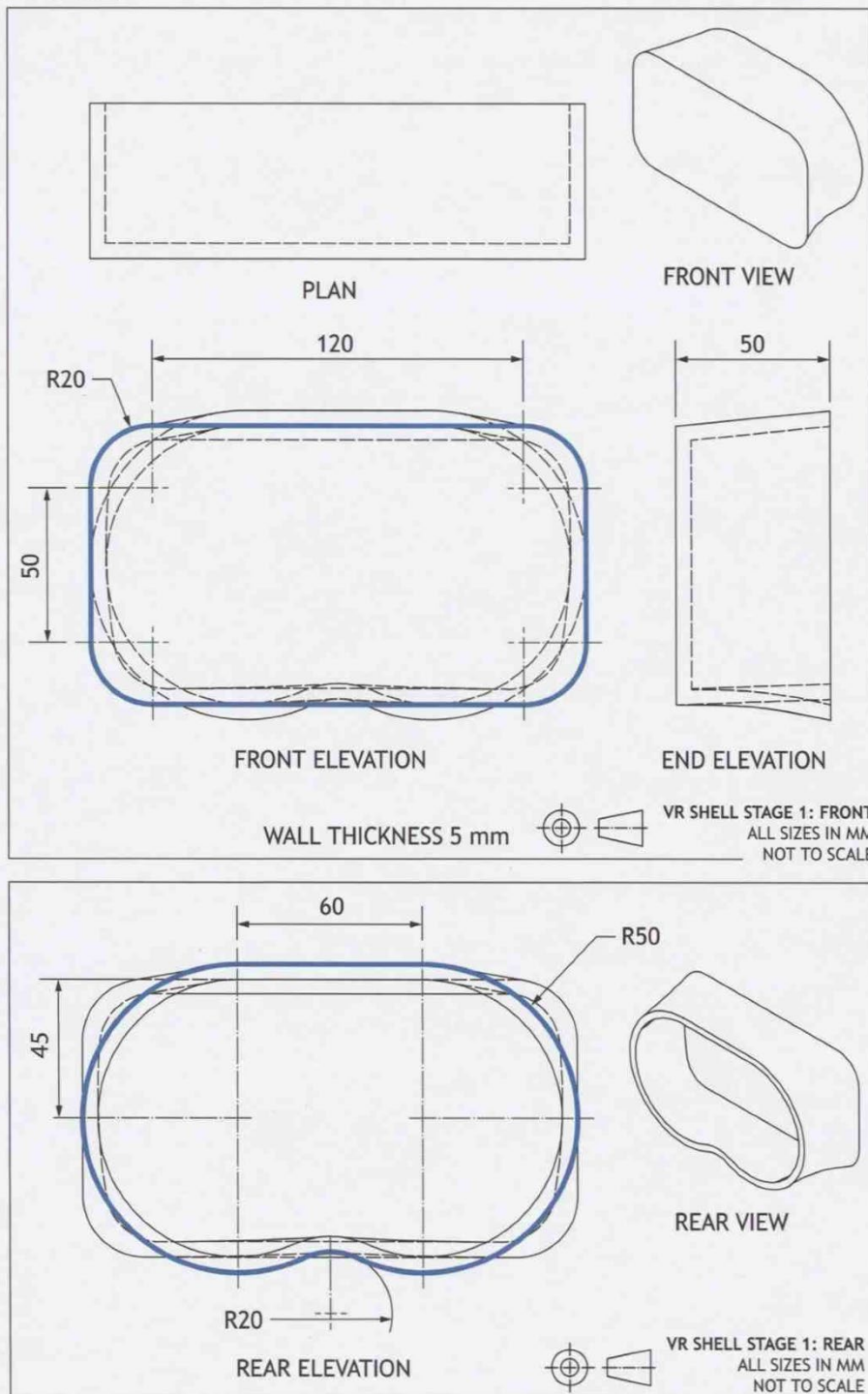
1

revolved section

MARKS
DO NOT
WRITE IN
THIS
MARGIN

2. (continued)

Two drawings of stage 1 of the VR headset are shown below. The drawing at the top is an orthographic showing the front elevation, end elevation and plan. The second drawing is also of stage 1 of the VR headset shown from the rear to make the profile easier to see.

DO NOT
WRITE IN
THIS
MARGIN

2. (continued)

MARKS

DO NOT
WRITE IN
THIS
MARGIN

- (d) (i) Describe the 3D CAD modelling techniques used to create stage 1 of the VR headset component, shown in the drawings opposite.

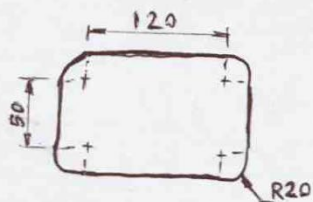
You must reference the dimensions in the drawing of the front and rear of the VR headset, shown opposite.

You may use sketches to support your answer.

5

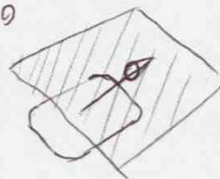
dimension
offset
sketch
loft
shell

1) SKETCH 2D PROFILE
DIMENSION AS SHOWN

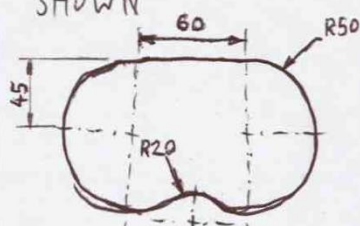


2) OFFSET PLANE FROM
PREVIOUS SKETCH BY

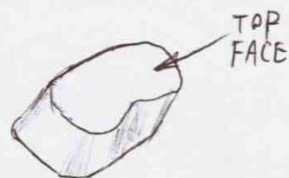
50



3) SKETCH NEW 2D
PROFILE ON NEW
PLANE, DIMENSION AS
SHOWN



4) LOFT TH 2 SKETCHES



5) SHELL THE
TOP FACE

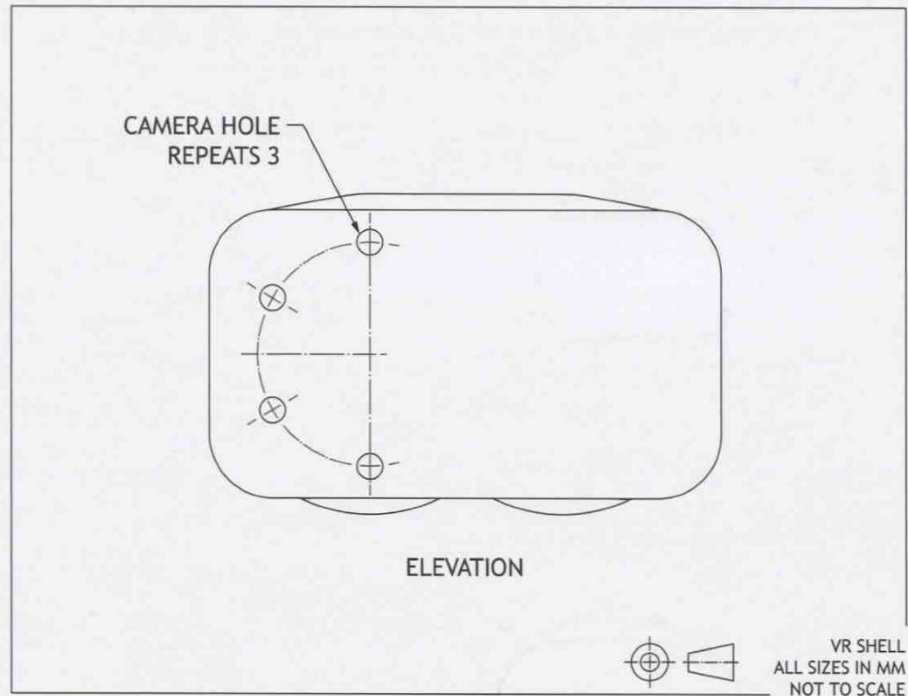


[Turn over]

MARKS DO NOT
WRITE IN
THIS
MARGIN

2. (d) (continued)

In stage 2, a series of camera holes were added to the VR headset.



- (ii) State the name of the 2D CAD command used to create the repeated feature in the drawing above.

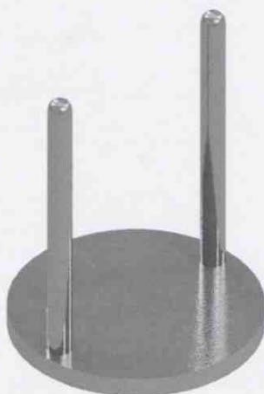
1

Pitch circle diameter (PCD)

2. (continued)

A prototype for a VR controller charging stand is shown below.

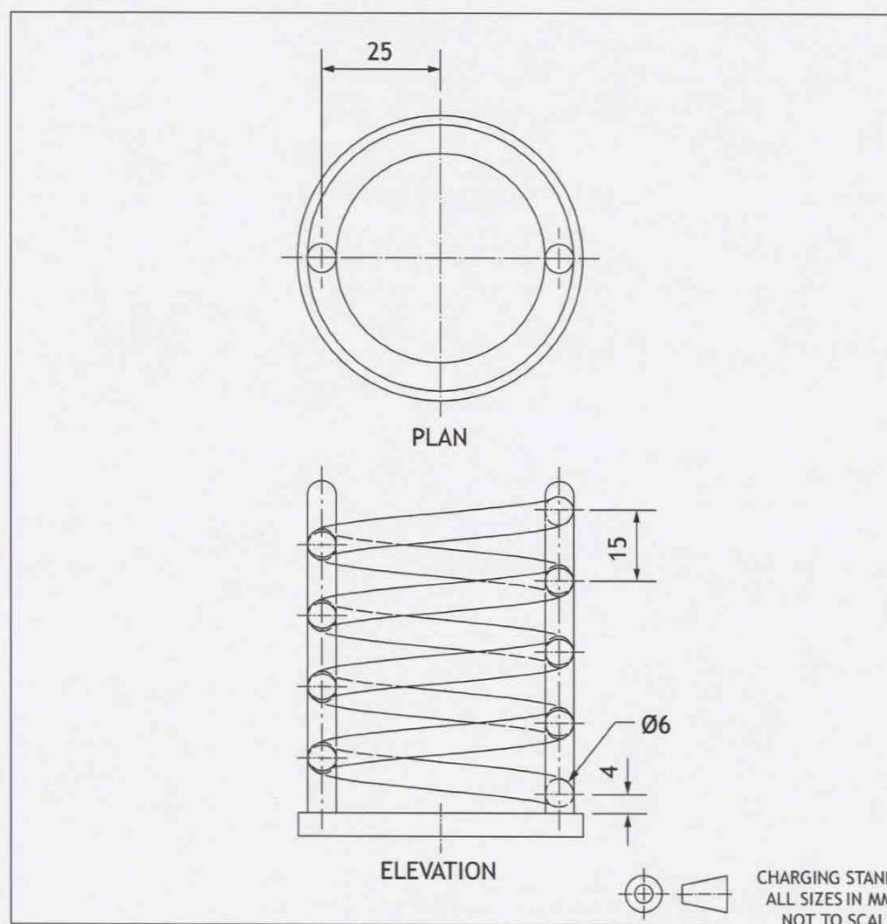
DO NOT
WRITE IN
THIS
MARGIN



Stage 1



Stage 2



MARKS

DO NOT
WRITE IN
THIS
MARGIN

2. (continued)

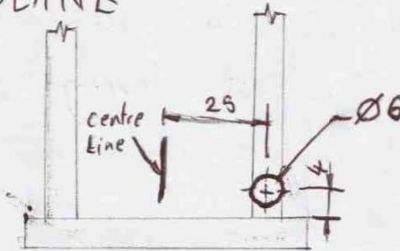
- (e) Describe the 3D CAD modelling techniques used to add the feature in **Stage 2** of the prototype controller charging stand, shown opposite.

You must reference the dimensions in the drawing.

You may use sketches to support your answer.

3

1) DIMENSION A NEW SKETCH AS SHOWN
ON A MID PLANE



HELIX

- 2) ~~REMOVE~~ THE SKETCH AROUND
THE CENTRE AXIS ~~LINE~~
WITH A PITCH OF 15
FOR FOUR REVOLUTIONS

[Turn over]

2. (continued)

The tech company hires freelance CAD technicians to create 3D models. They all use different CAD software.

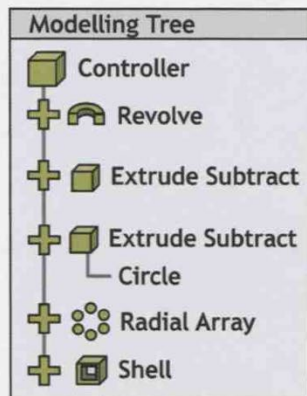
- (f) (i) State a suitable file format the CAD technicians can use to share models. 1

- STEP

- (ii) Explain why using this file format is beneficial to the CAD technicians. 1

it is a standardised format, supported by almost every CAD package

An error was made during the controller modelling process.



result with modelling error

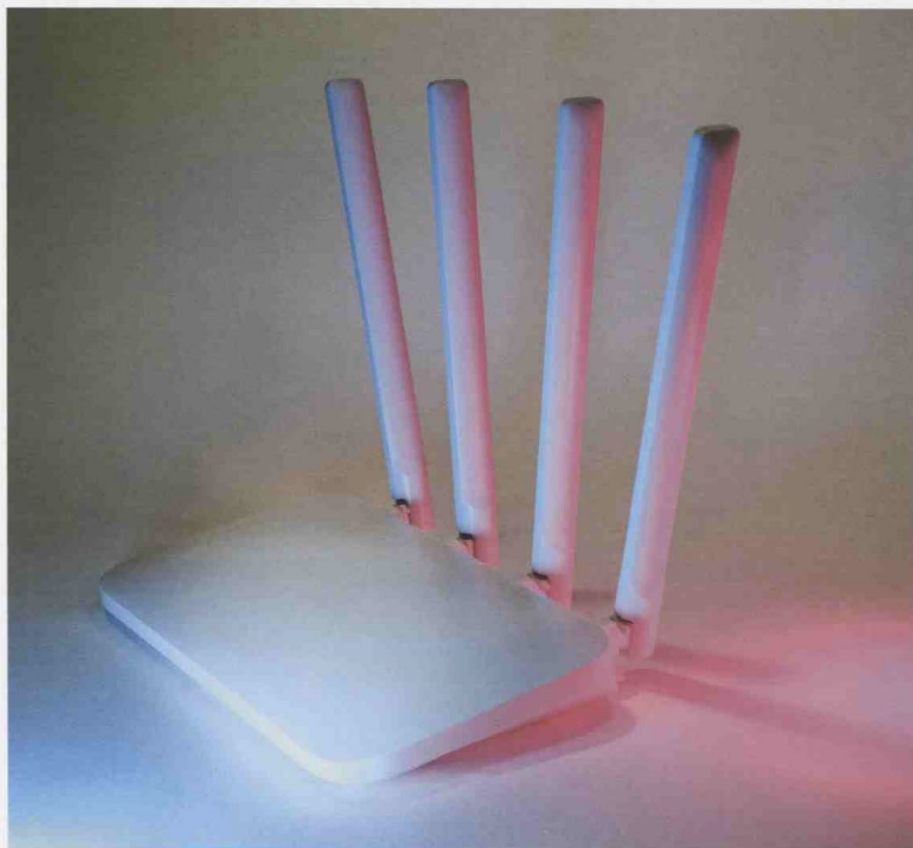


expected end result

- (g) Describe the change that needs to be made to the modelling tree to fix the error and achieve the expected end result. 1

the shell needs to be done before the extrude subtract - circle

3. A wireless router is being developed using CAD.



DO NOT
WRITE IN
THIS
MARGIN

3. (continued)

MARKS
DO NOT
WRITE IN
THIS
MARGIN

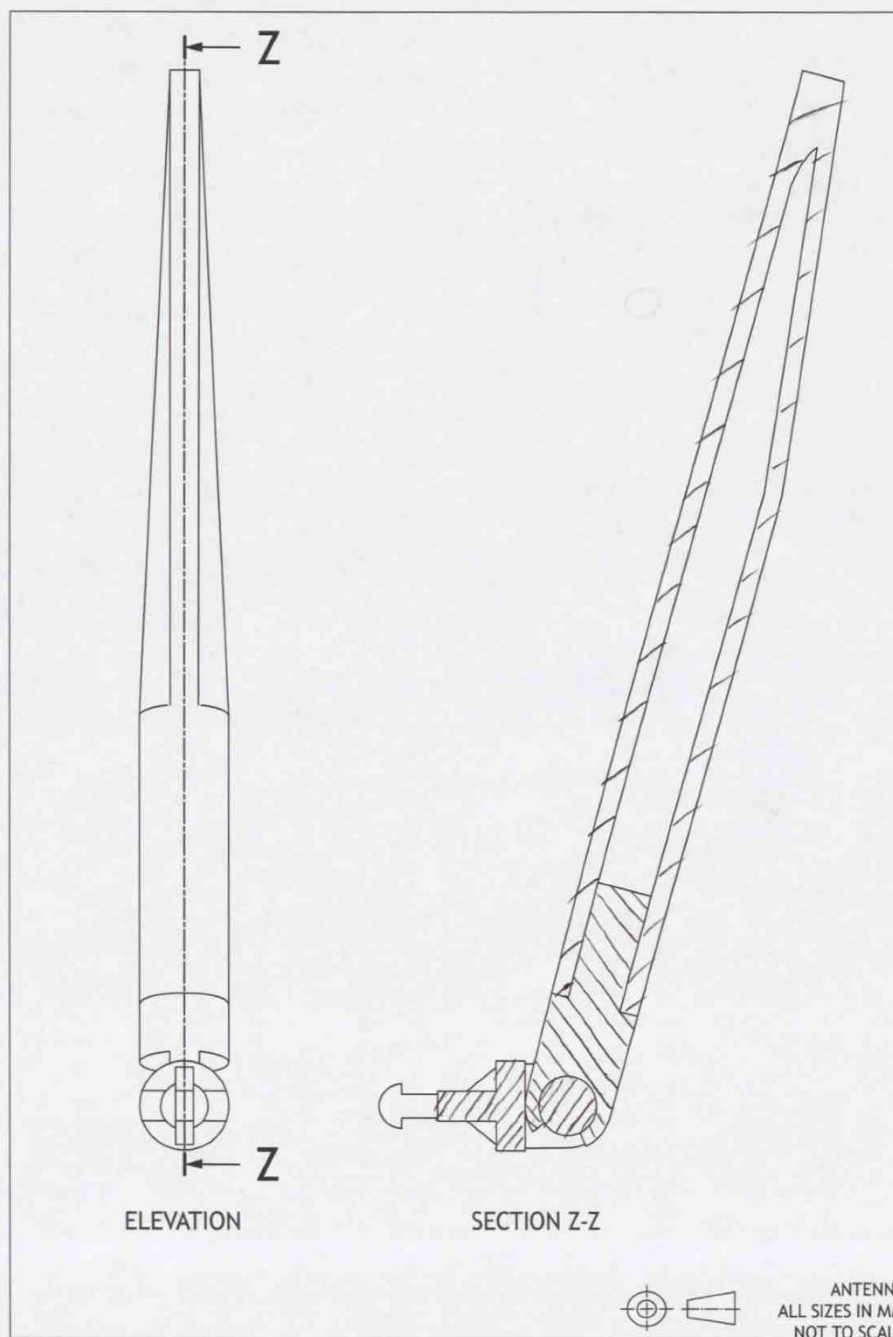
An incomplete sectional view of the wireless router antenna is shown below.

- (a) Complete the sectional view by adding appropriate hatching.

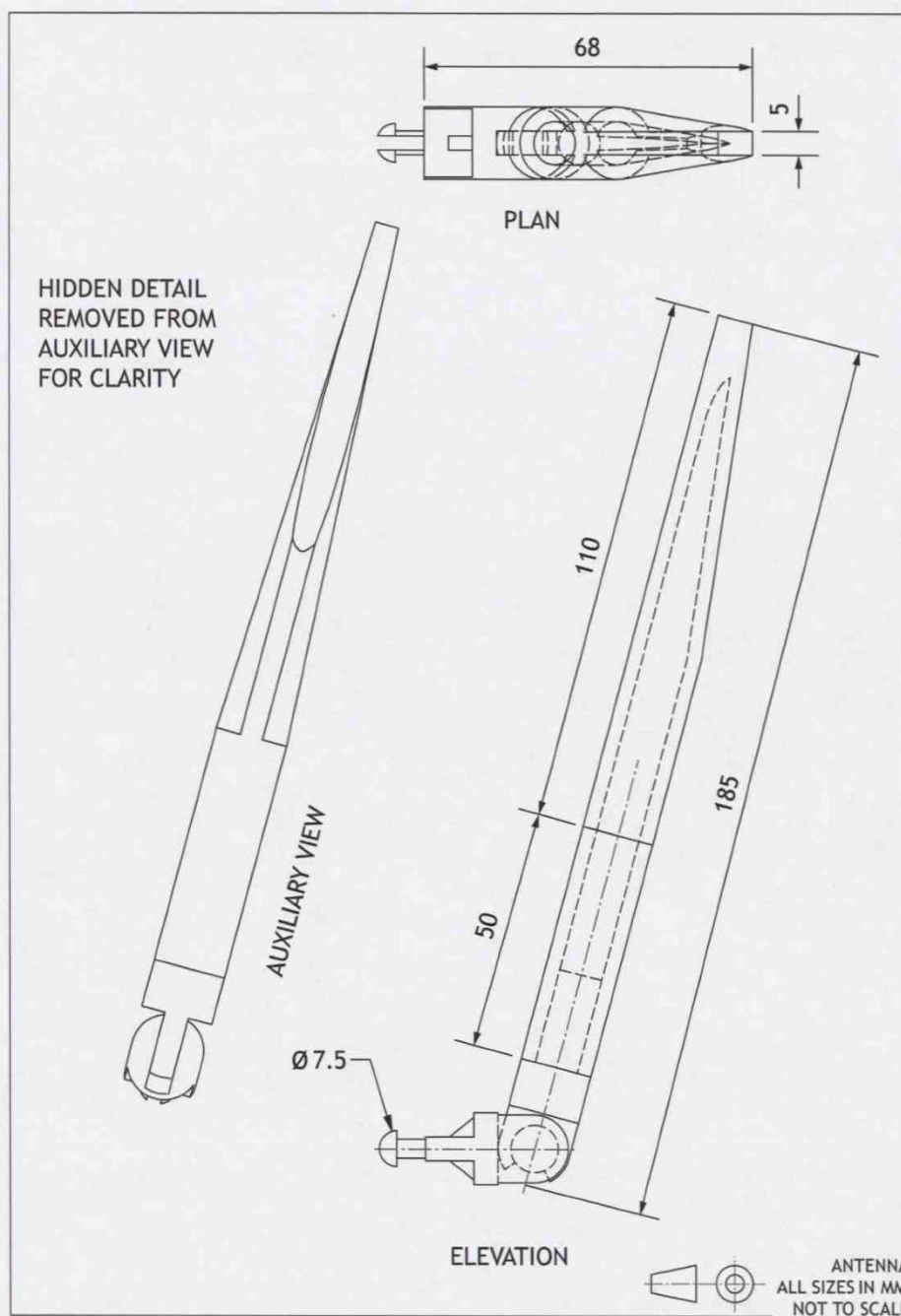
Use the information provided on **supplementary sheet 4**.

(Additional graphics, if required, can be found on *page 36*.)

4



3. (continued)

DO NOT
WRITE IN
THIS
MARGIN

3. (continued)

- (b) Identify **three** errors which are not correct to British Standard conventions in the drawing of the antenna, shown opposite.

3

- 1 the 3rd angle projection symbol is backwards
- 2 the plan looks messy and unreadable due to the ~~angle~~
- 3 no centre line on the circle hinge
4. auxiliary view title is rotated

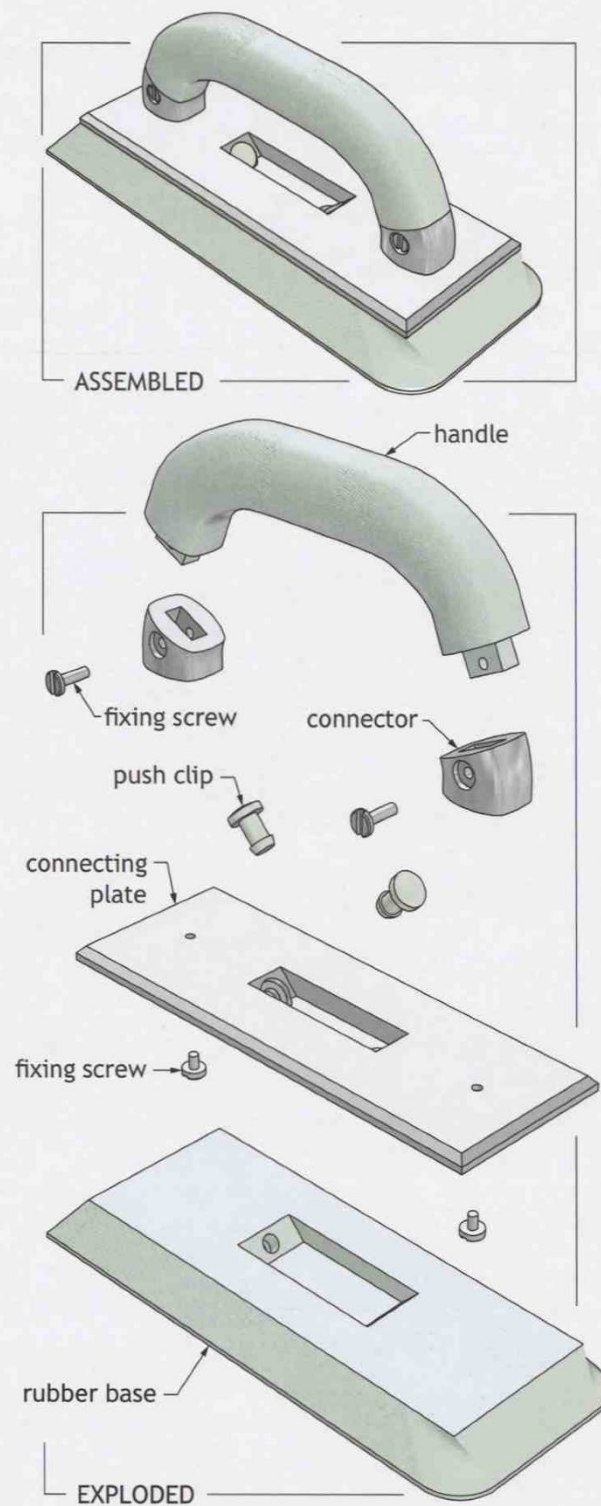
[Turn over]

MARKS

DO NOT
WRITE IN
THIS
MARGIN

4. A tiling company has produced the assembled and exploded view of a grout float shown below.

DO NOT
WRITE IN
THIS
MARGIN



4. (continued)

MARKS

DO NOT
WRITE IN
THIS
MARGIN

- (a) (i) Describe **two** examples of good practice in the exploded view.

2

no leading lines to keep ~~visual~~ drawing
clean and easily readable
all parts visible and no parts
overlapping or hidden

- (ii) Describe, giving **two** examples, the purpose of an exploded view.

2

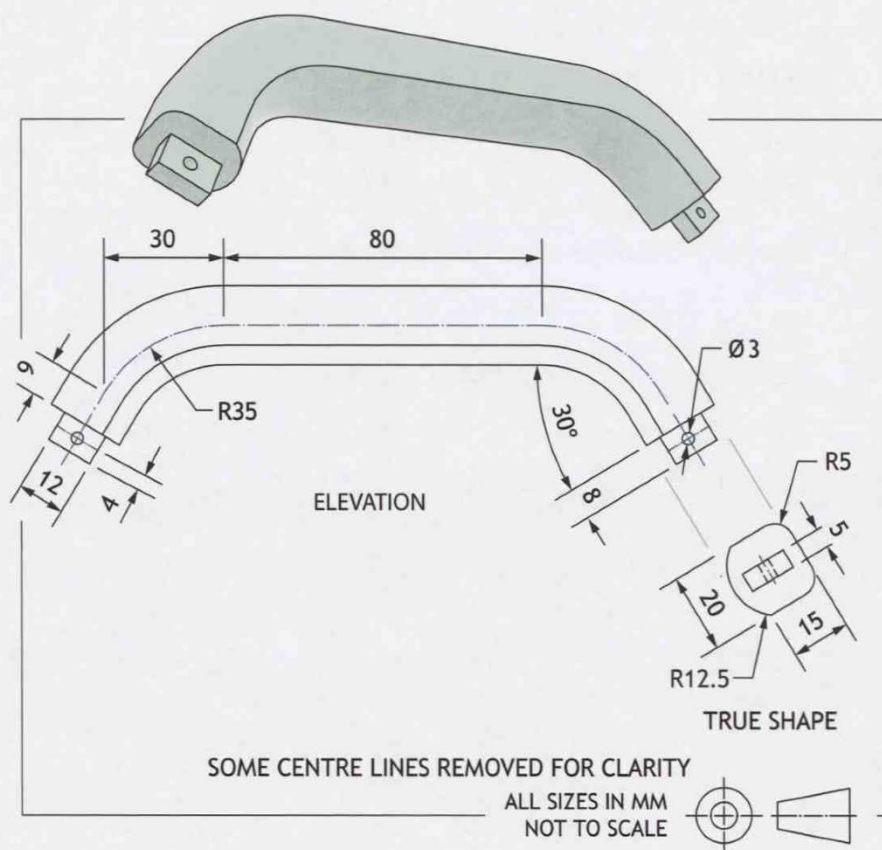
to show how the product gets assembled together

to show how many parts are in the assembly

[Turn over

4. (continued)

An orthographic drawing of the handle component is shown below.



DO NOT
WRITE IN
THIS
MARGIN

4. (continued)

- (b) Describe the 3D CAD modelling techniques used to model the handle component, shown opposite.

You must refer to the dimensions given in the drawing.

You may use sketches to support your answer.

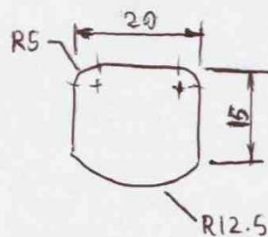
MARKS

DO NOT
WRITE IN
THIS
MARGIN

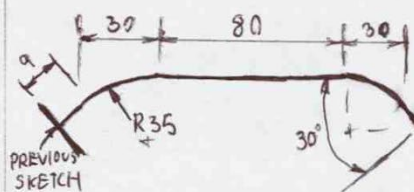
5

SKETCH
Sketch
Sweep
Dimension
Extrude
Mirror

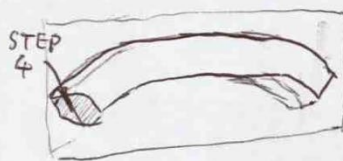
- 1) SKETCH 2D PROFILE,
DIMENSION AS SHOWN



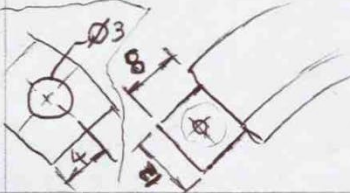
- 2) SKETCH NEW 2D PROFILE
ON PERPENDICULAR PLANE,
DIMENSION AS SHOWN



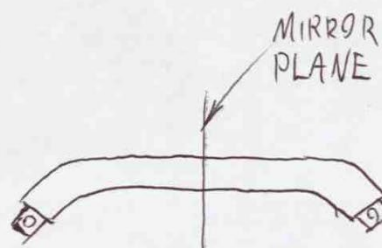
- 3) SWEEP PART 1
SKETCH ALONG
PART 2 SKETCH



- 4) SKETCH A NEW 2D
PROFILE, PERPENDICULAR
TO THE HIGHLIGHTED
FACE, DIMENSION AS SHOWN



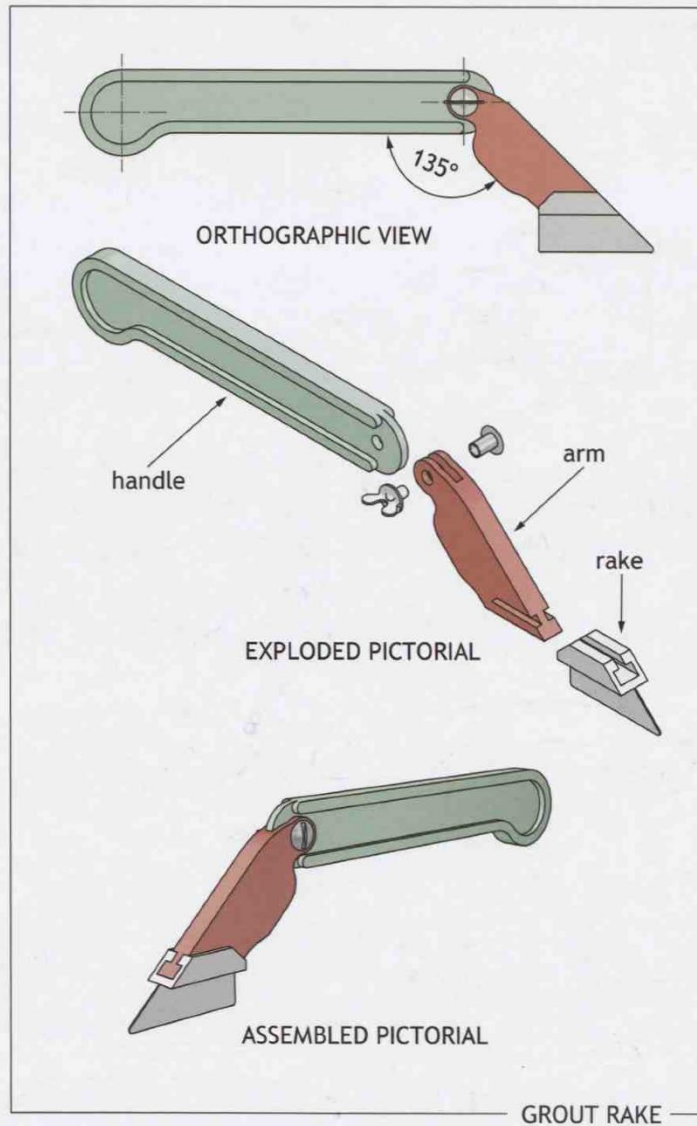
- 5) EXTRUDE ADD
SYMETRICALLY BY
5 THEN MIRROR
THE EXTRUSTION
ON THE CENTRE
PLANE



[Turn over]

4. (continued)

Graphics for a grout rake are shown below.



DO NOT
WRITE IN
THIS
MARGIN

4. (continued)

MARKS

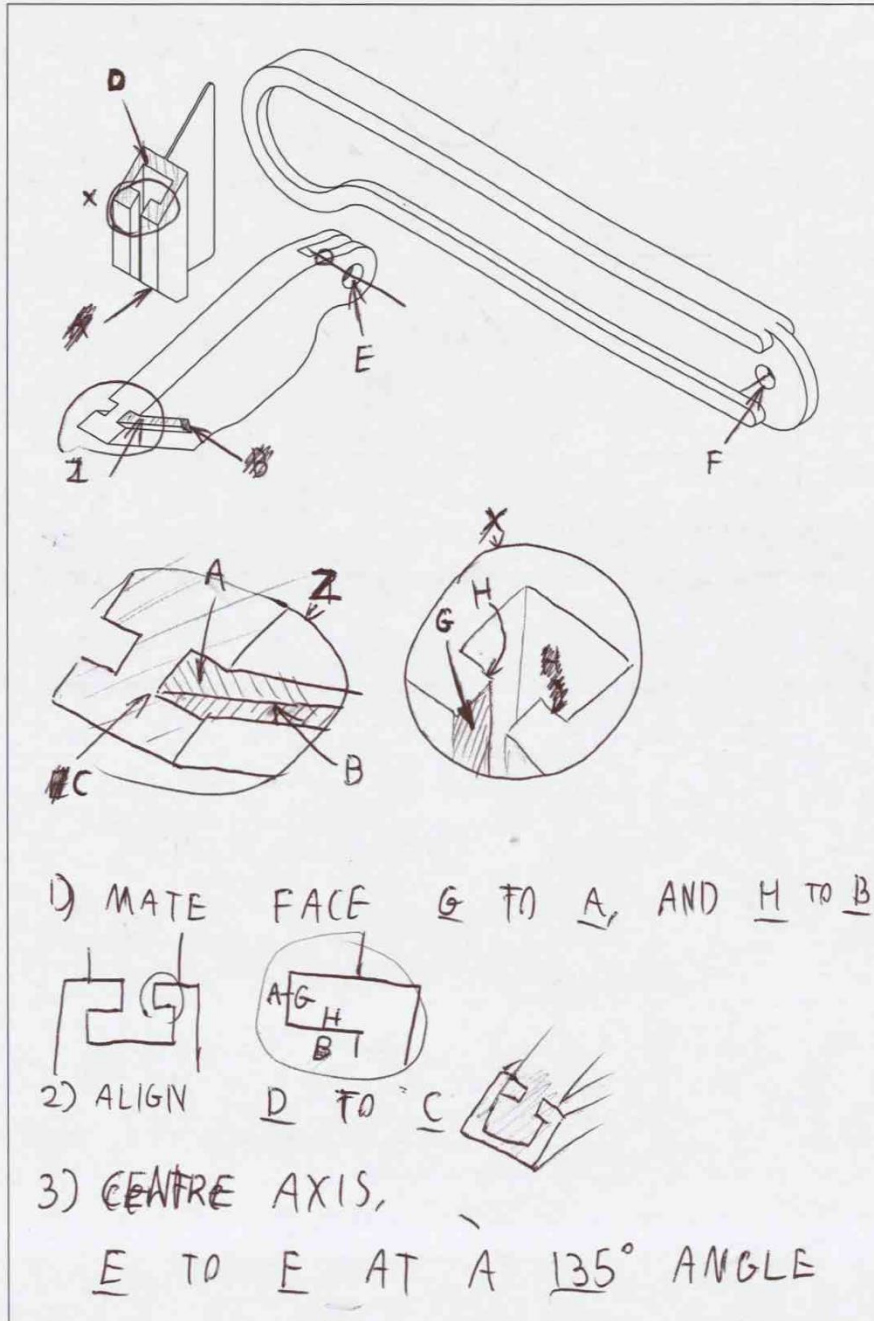
DO NOT
WRITE IN
THIS
MARGIN

- (c) Describe, using 3D CAD terms, how to constrain the three grout rake components, shown below.

You must constrain the arm and rake at a 135° angle to each other, as shown opposite.

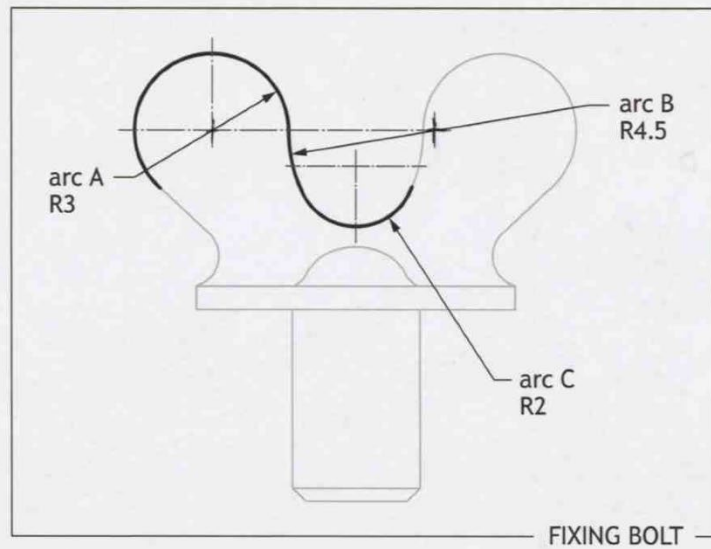
You may annotate the drawings and use sketches to support your answer.

4



4. (continued)

The fixing bolt component was modelled using tangency.



(d) Using the principles of tangency:

- (i) calculate the distance from the centre of arc A to the centre of arc B

1

$$3 + 4.5 = 7.5$$

- (ii) calculate the distance from the centre of arc B to the centre of arc C.

1

$$4.5 - 2 = 2.5$$

MARKS

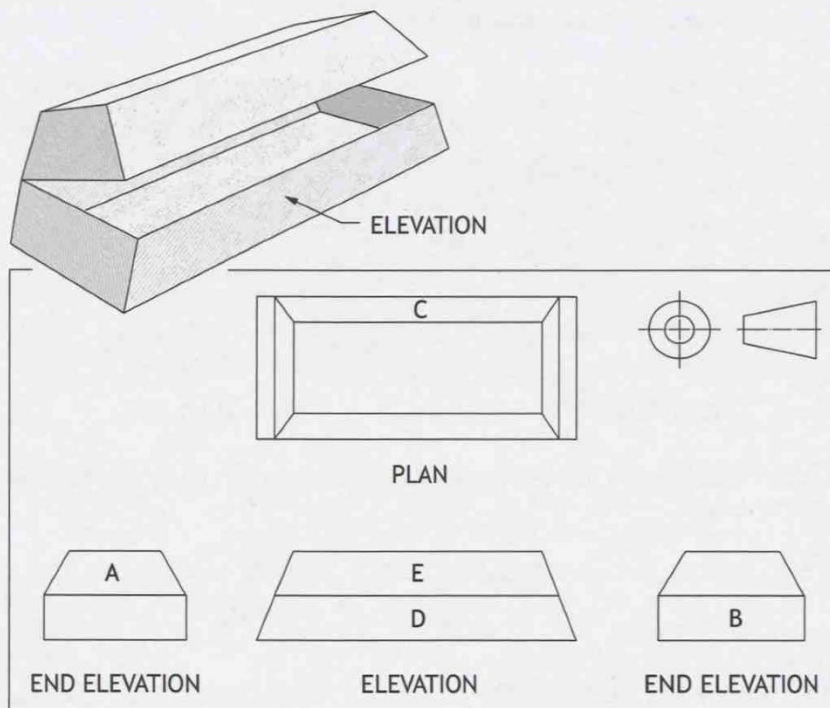
DO NOT
WRITE IN
THIS
MARGIN

4. (continued)

MARKS

DO NOT
WRITE IN
THIS
MARGIN

Graphics for proposed packaging for the grout rake are shown below.

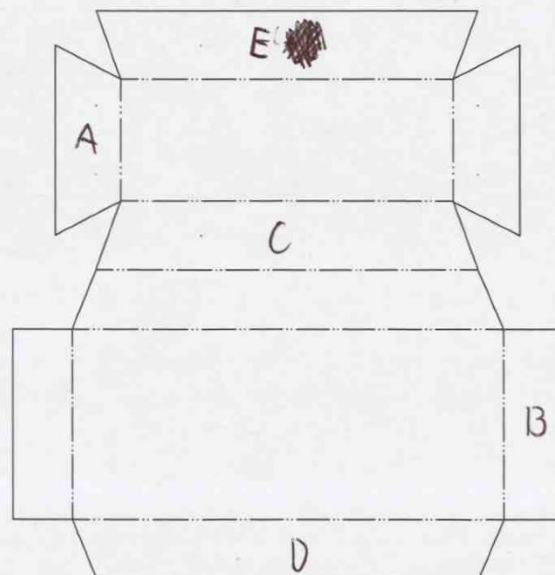


- (e) Identify the position of faces A–E on the surface development below.

The surface development is shown from the outside.

(An additional graphic, if required, can be found on *page 37*.)

5



MARKS DO NOT
WRITE IN
THIS
MARGIN**4. (continued)**

Illustrations of the grout rake are shown below.

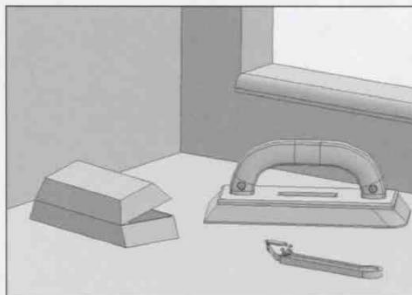


Illustration 1



Illustration 2

- (f) Describe two 3D rendering techniques applied to produce the graphic shown in Illustration 2.

2

textures to make the scene look
real

shadows to emulate how light
affects them

- (g) Describe, giving two examples, how the use of a sited environment can improve an illustration.

2

makes the illustration look more
realistic

can also give viewers context and
a sense of scale for products

5. A flyer for a soap company is shown below.

DO NOT
WRITE IN
THIS
MARGIN

(i) →

© SaranteSoaps 2025 → (ii)

**SCOTLAND'S NUMBER 1
SOAP & CLEANING SUPPLIER**

SARANTE SOAPS

UPDINGSTON. PERTH. AVERMORE

OUR PRODUCTS

(iii) → **W**hether you shop online or shop in store, you'll find a fantastic range of products to suit your cleaning needs. All of our products are manufactured using sustainable material.

- Organic soaps
- Bath bombs
- Citrus cleaners
- Stain removers
- Industrial bleaches
- Artisan soaps
- Odour removers
- Un-perfumed soaps
- Vegan products

OUR SERVICES

We offer a varied range of services for homes and business. Using our online booking system you can specify which services you require, and the frequency of visits. Our team of expert cleaners can keep your home or work environment looking its best all year round. For more information, visit our website, or contact our offices directly using the details below.

(iv) →

HAMILTON. INVERNESS. HIRKALDY

Text 1

Text 2

MAIN PERTH DEPOT



ADDRESS

Warehouse 72
North Cairn Street
Perth, Scotland

T: 02983 2228891
E: sa.soaps@enq.uk
W: www.sasoaps.co.uk

Flyer distribution date: May 2025

(v) →

		MARKS	DO NOT WRITE IN THIS MARGIN
5. (continued)			
(a)	State the name of the desktop publishing symbols and techniques labelled on the flyer shown opposite.		
(i)	<u>registration mark</u>	1	
(ii)	<u>header</u>	1	
(iii)	<u>drop capital</u>	1	
(iv)	<u>rule</u>	1	
(v)	<u>crop marks</u>	1	
(b)	State the two different types of text justification labelled on the flyer shown opposite.	2	
Text 1	<u>full justify</u>		
Text 2	<u>center justify</u>		
(c)	Describe the benefit of using the desktop publishing technique bleed in the flyer.	1	
	<u>to ensure edge-to-edge printing</u>		
[Turn over			

5. (continued)

The layout was produced using layers in DTP software.



- (d) Describe **two** advantages to the graphic designer of using layers to produce the layout.

2

allows designers to edit specific parts
of the design
allows layers to be hidden to make
designing easier

The images used on the flyer were photographed by the company's graphic designer.

- (e) Describe **two** benefits to the soap company of using images created by staff, rather than using stock images.

2

they won't have to pay others for
the rights to images
images can be shot to specifically
suit the designs themes and needs

MARKS

DO NOT
WRITE IN
THIS
MARGIN

5. (continued)

A digital version of the flyer was produced, shown below.



- (f) Explain two benefits to consumers of accessing desktop published media digitally.

2

- can be accessed or viewed any where due to it being online
- updates to the design can be viewed or updated ~~immediately~~ immediately
- design can also contain hyperlinks to take viewers to their website

[Turn over]

MARKS DO NOT
WRITE IN
THIS
MARGIN

5. (continued)

A CAD technician produced a site plan of the soap company's main depot.



site plan

- (g) Describe, giving **four** examples, the information that the site plan communicates about the depot.

4

- the direction of north to show where the building's facing
- parking lots to show how many visitors are available
- paths and roads to indicate ease of access
- it shows where existing trees are

MARKS DO NOT
WRITE IN
THIS
MARGIN**5. (continued)**

A floor plan of the main depot was also produced. The graphic featured a range of British Standard symbols. Two are shown below.



symbol A



symbol B

(h) State the name of symbols A and B.

2

- (i) Symbol A radiator
Symbol B toilet

(ii) Describe, giving **two** examples, how a CAD library would be useful for the CAD technician when producing the floor plan.

2

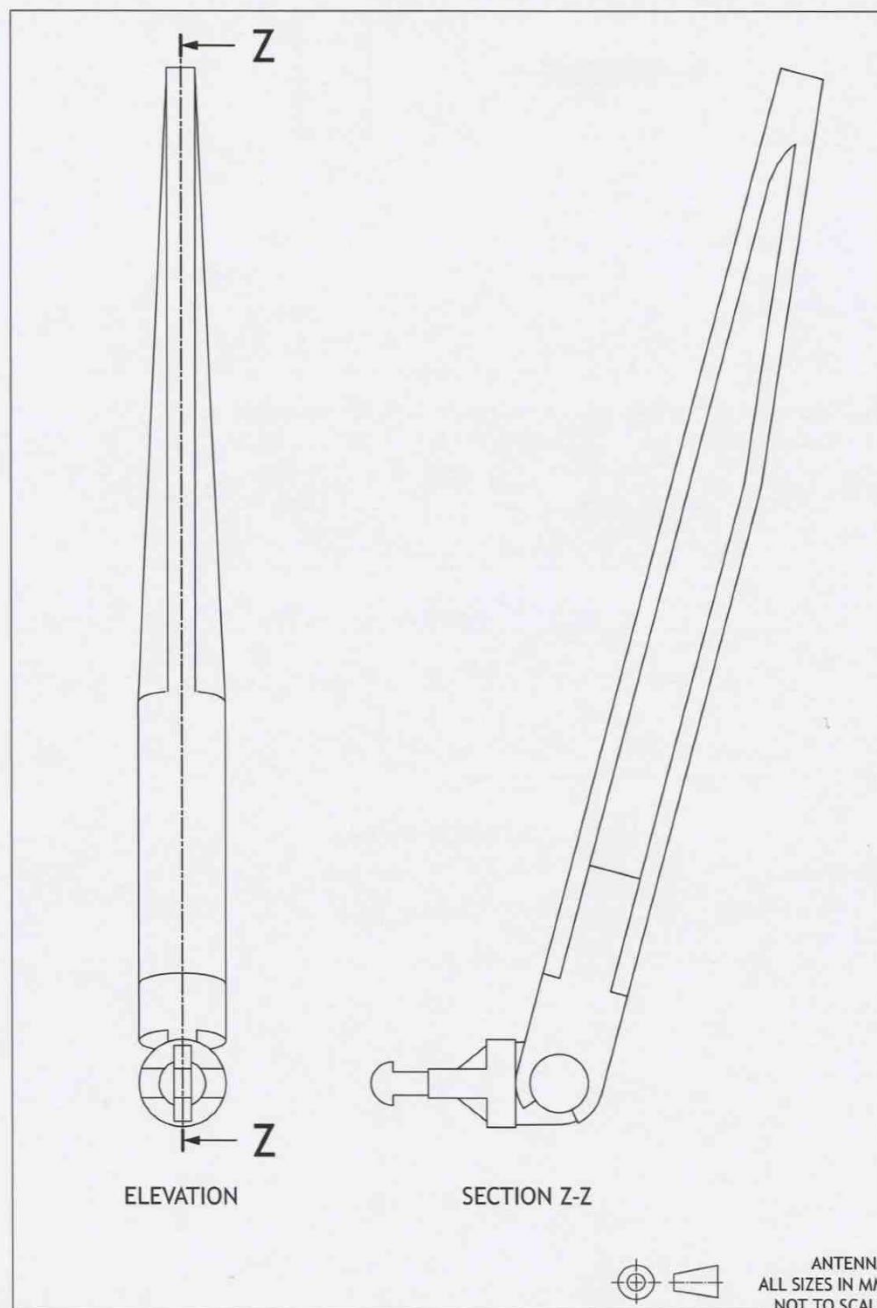
~~saves time, so they don't need
to model dozens of screws
cad libraries contain standardised sized
parts, meaning easier assembly~~
[Answer at the end]

[END OF QUESTION PAPER]

ADDITIONAL SPACE FOR ANSWERS

DO NOT
WRITE IN
THIS
MARGIN

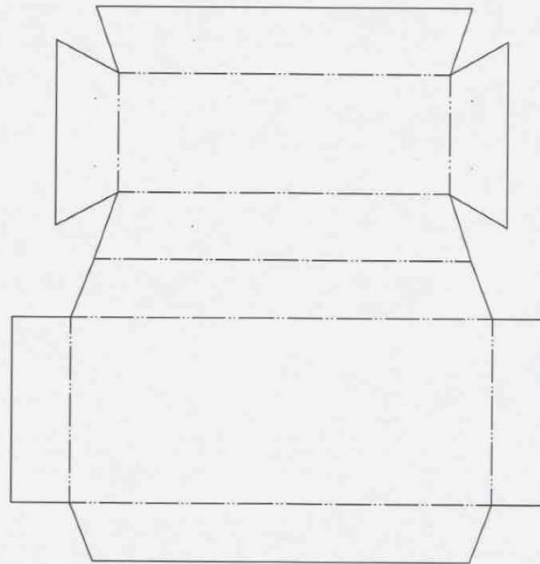
Additional graphics for question 3 (a)



ADDITIONAL SPACE FOR ANSWERS

DO NOT
WRITE IN
THIS
MARGIN

Additional graphic for question 4(e)



5) h) ii)

- saves time, not needing to draw eg. (trees, sawn timber) by hand
ensures designers don't make errors
e.g. (drawing "remove tree", rather than "existing tree")