

Higher
Graphic Communication
Specimen Question Paper

Time: 3 hours

NATIONAL
QUALIFICATIONS

- Section A

Candidates should attempt **all** questions and are advised to spend approximately 45 minutes on this section.
- Section B

Candidates should attempt questions 8, 9 and 10 and **either** question 11 **or** question 12.

Drawings and sketches must be in pencil, all other answers must be in ink.
All dimensions are given in millimetres unless otherwise stated.

Marks Grid

Question	Mark
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11 or 12	
Total Marks	

1. A Thematic Presentation should include *production graphics* and *promotional graphics*. State the main purposes of each.

Marks

(4)

Production graphics

Promotional graphics

2. A designer has been commissioned to produce designs for the control panel layout on a car dashboard. As well as computer and mouse, she has at her disposal the following peripherals.

digital scanner	digital stills camera
high resolution monitor	digitising tablet
multipen plotter	colour printer

Choose any **two** input **and** any **two** output devices from the above list and suggest what use these devices **could have** in relation to this task.

(8)

Input device 1

2

Output device 1

2

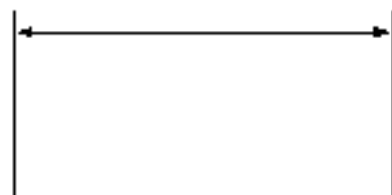
3. (a) On production drawings, some dimensions may be given a tolerance. Explain clearly why a tolerance may be required.

2

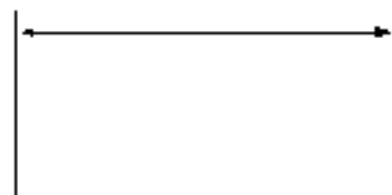
- (b) On the following sketches show the difference between the terms *symmetrical tolerance* and *asymmetrical tolerance*.

2

(4)



symmetrical tolerance



asymmetrical tolerance

4. Graphic communication involves many different types and styles of graphic presentation. Two of these are:

a surface development; a site plan.

- (a) For **each** type, state **two** industrial/commercial operators who would be likely to make use of them.

2

Surface development

Site plan

1

1

2

2

- (b) For **each** type, provide **two** pieces of graphical information you might expect to find on the drawing.

2

(4)

Surface development

Site plan

1

1

2

2

5. A small company wishes to produce letters, flyleaves, advertisements and menu cards on a colour inkjet printer. Suitable software packages could consist of:

an illustration package; a desk top publishing package.

- (a) For **each** package, identify **three main** features which may be desirable. (Six different features)

3

Illustration package

1

2

3

DTP package

1

2

3

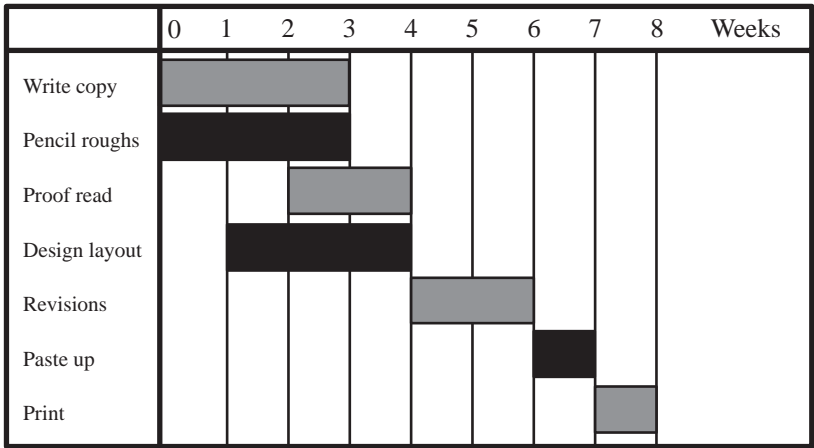
- (b) For **one** package, explain how the **three** features may be used.

3

(6)

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6. The Gantt chart shown below could be used in the production of a desk top publishing assignment.



(a) Explain three benefits of using a Gantt chart before starting an assignment.

(b) From the chart, explain why the *Write copy* and *Pencil roughs* blocks have been positioned above and below each other.

(c) Calculate the minimum time required to complete **all three** of the following stages:
Proof read;
Design layout;
Revisions.
Show clearly how you arrived at your answer.

Marks

3

1

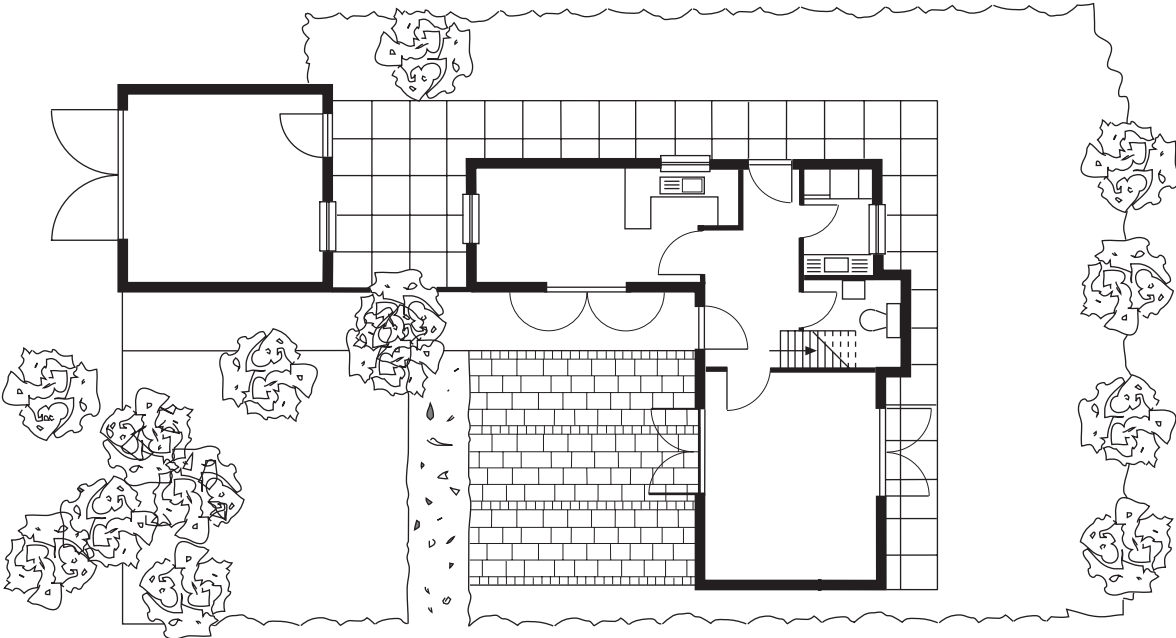
2

(6)

7. Modern computer-aided draughting packages have a large number of commands and features including:

- (i) library;
- (ii) copy;
- (iii) grid lock or snap;
- (iv) layering.

Explain clearly how **each** of the above commands and features could be used in producing the drawing shown below.

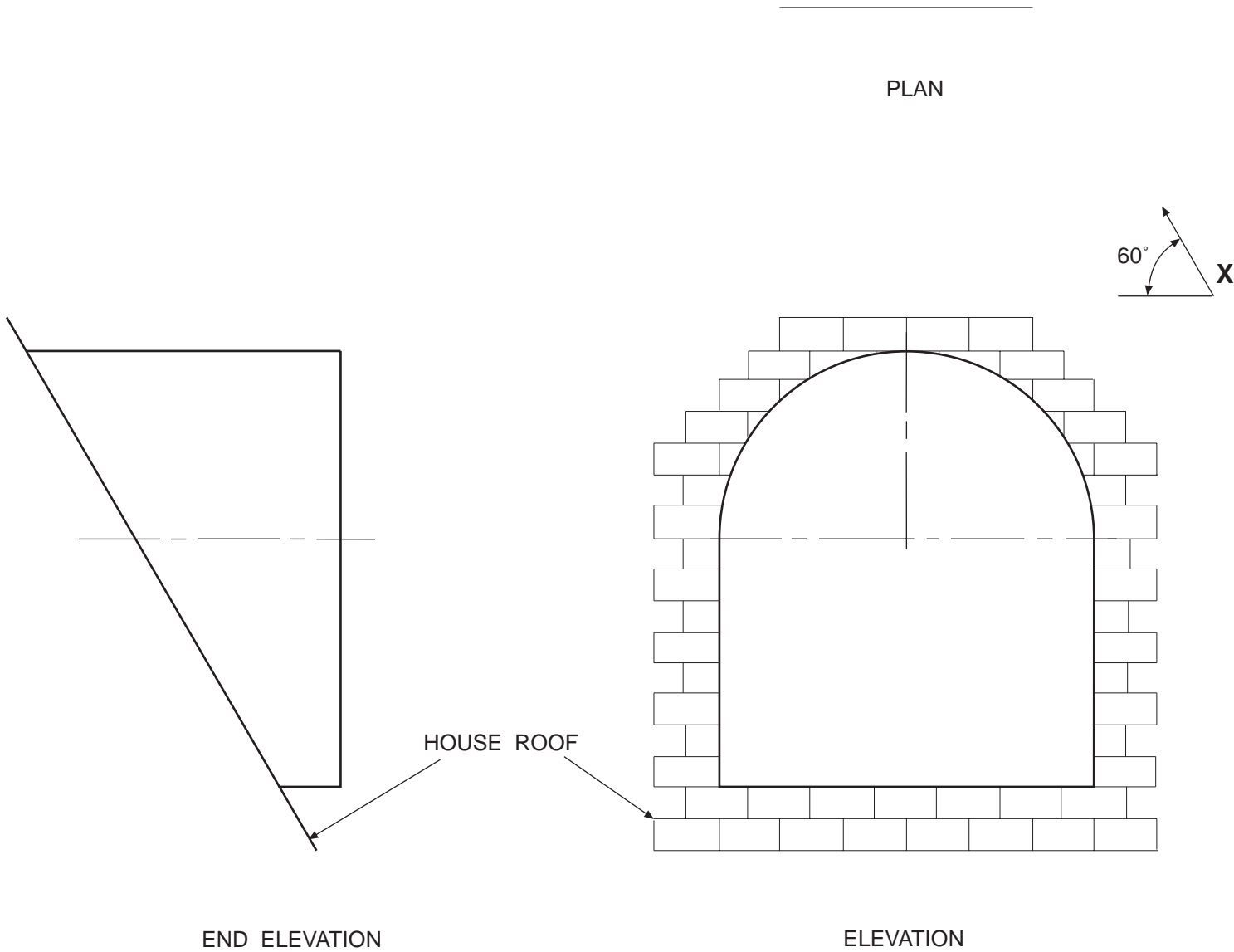


- (i)
- (ii)
- (iii)
- (iv)

(8)

Two views of an attic window are shown.
Neglecting the house roof, draw to the same scale:
(a) a plan of the window;
(b) an auxiliary elevation in direction of arrow **X**;
(c) the true shape of the opening in the roof.

Do not show hidden detail. (20 marks)

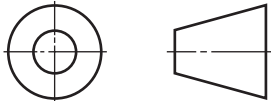


TRUE SHAPE

AUXILIARY ELEVATION

Section B

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

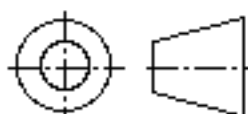
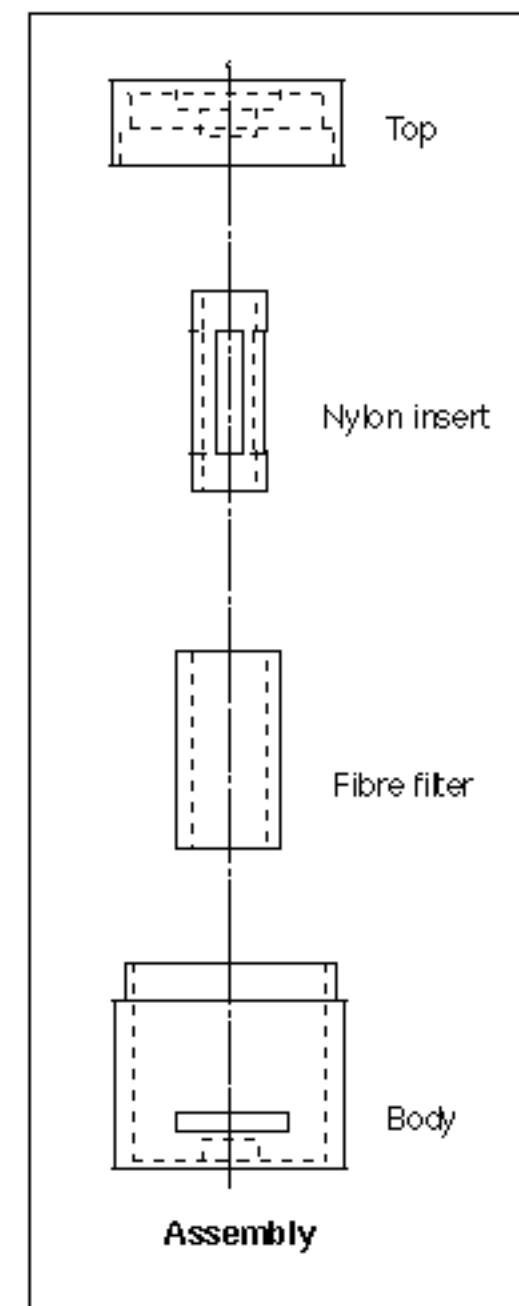
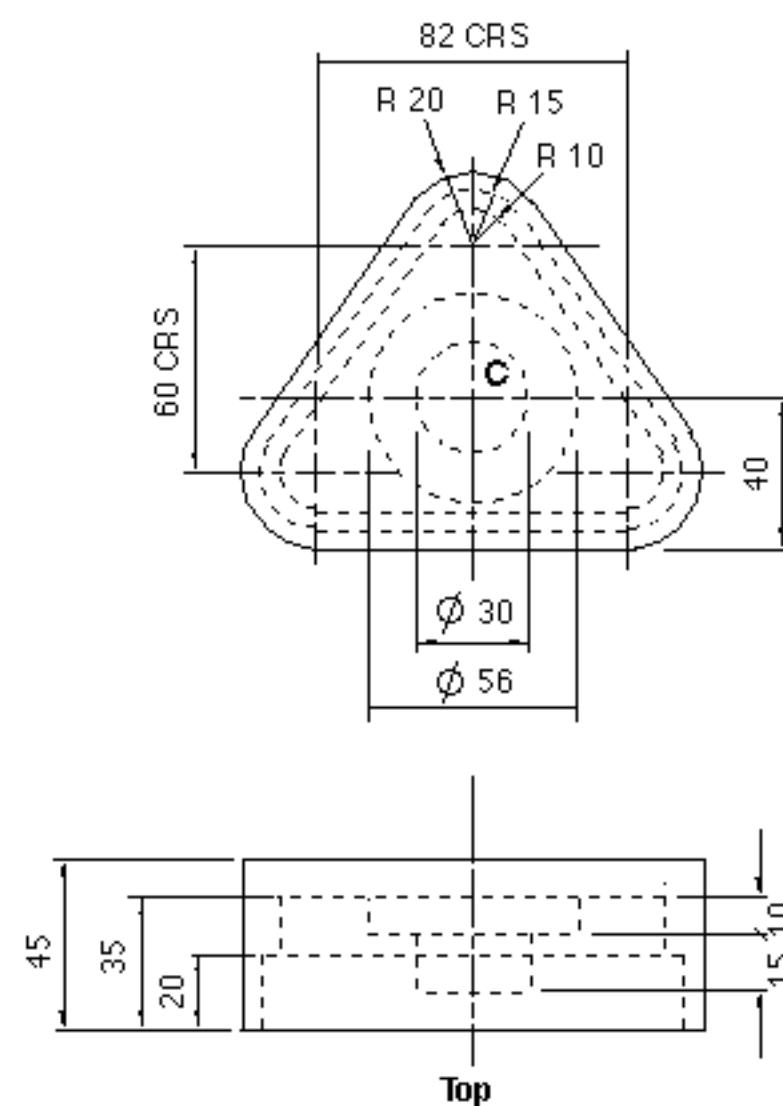
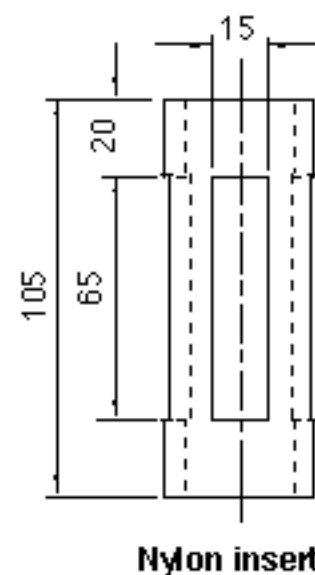
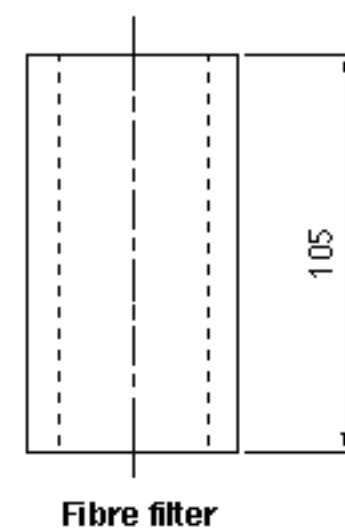
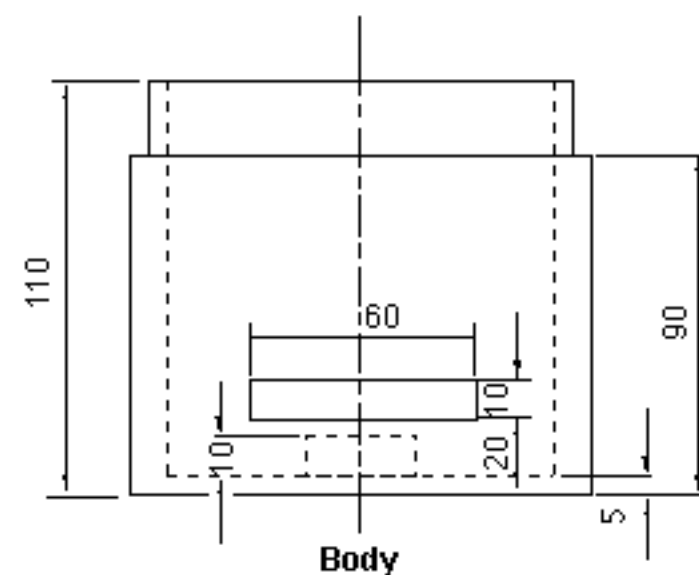
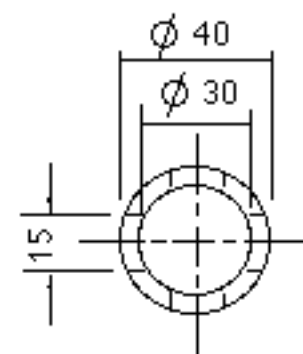
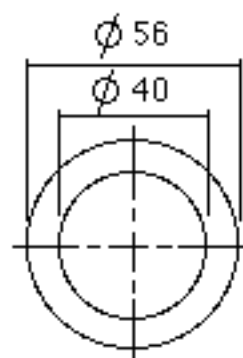
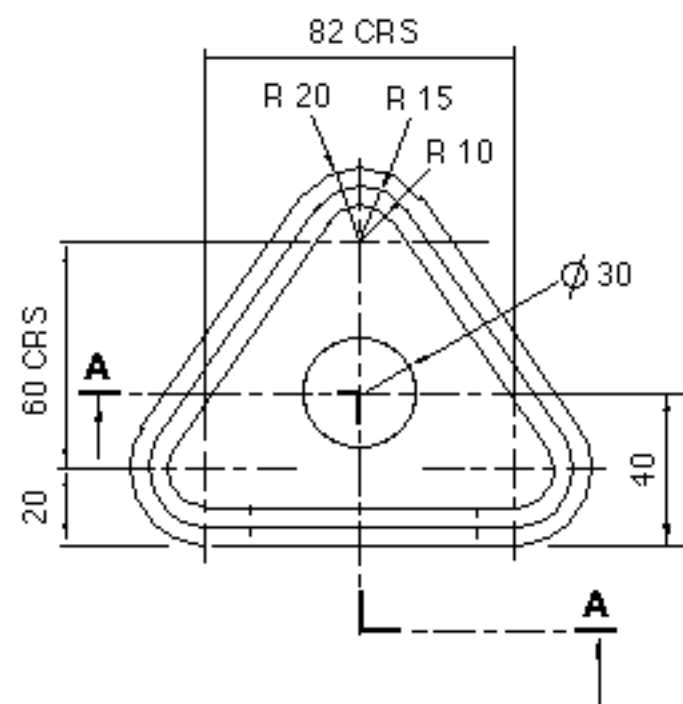


Details of an aquarium water filter, without its motor, are given.

On **Worksheet Question 9**:

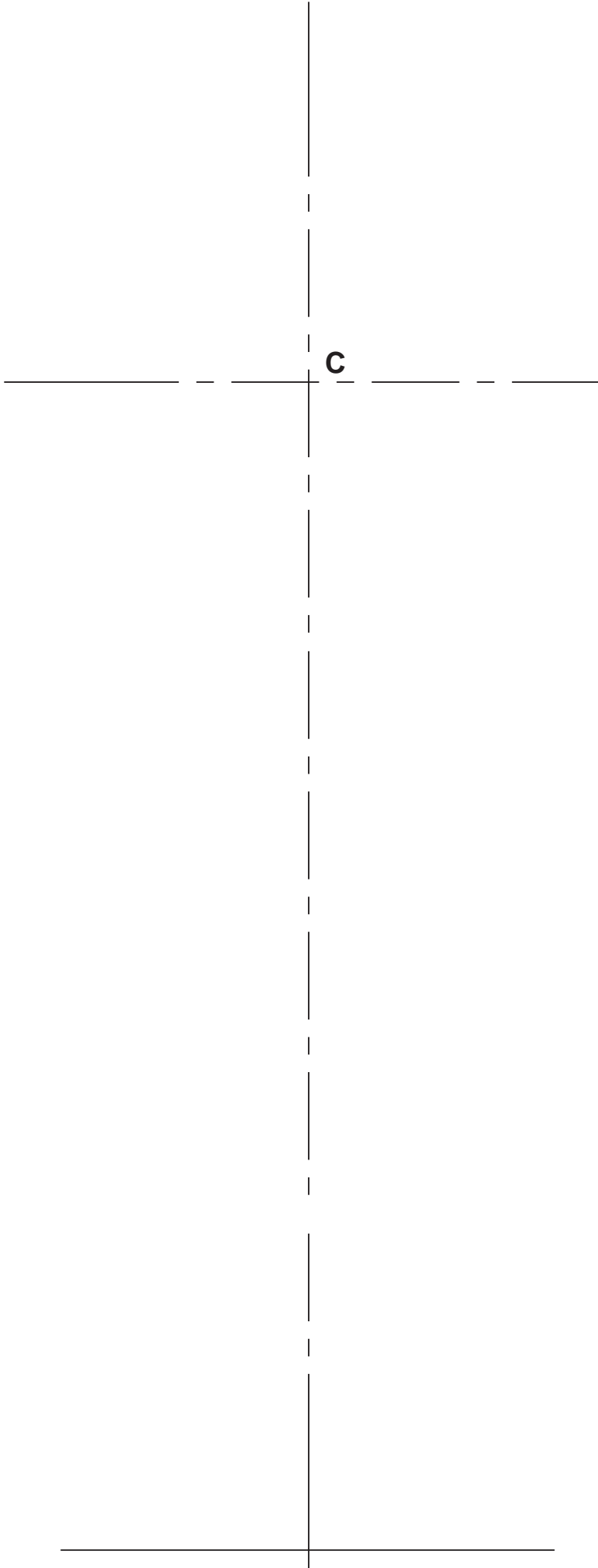
- (a) To a scale of 1:1, draw a plan of the assembled parts in the position shown. 8
- (b) From the plan, project a sectional elevation through A-A. Do **not** show hidden detail. 18
- (c) Sketch, full size, in 2-point perspective, the assembled filter lying on the face which has the slot in the body. Add tonal rendering to emphasise light and shade. 4

(30 marks)



Section B

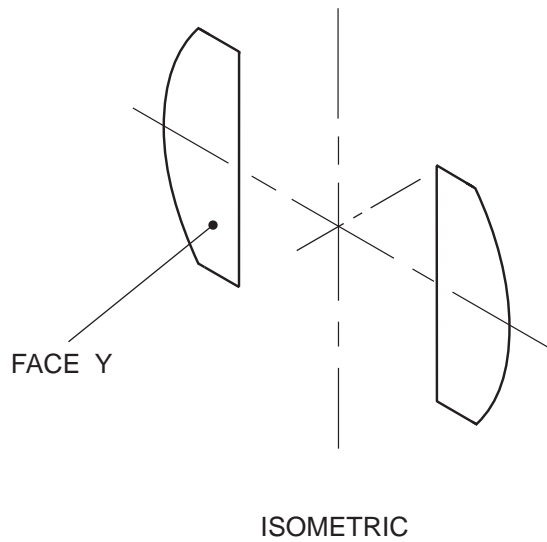
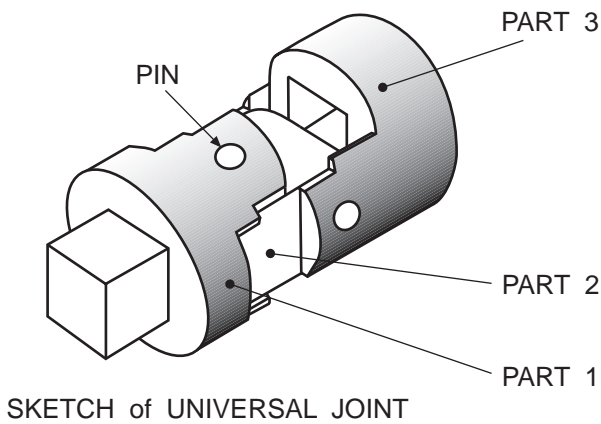
Section B



PERSPECTIVE SKETCH

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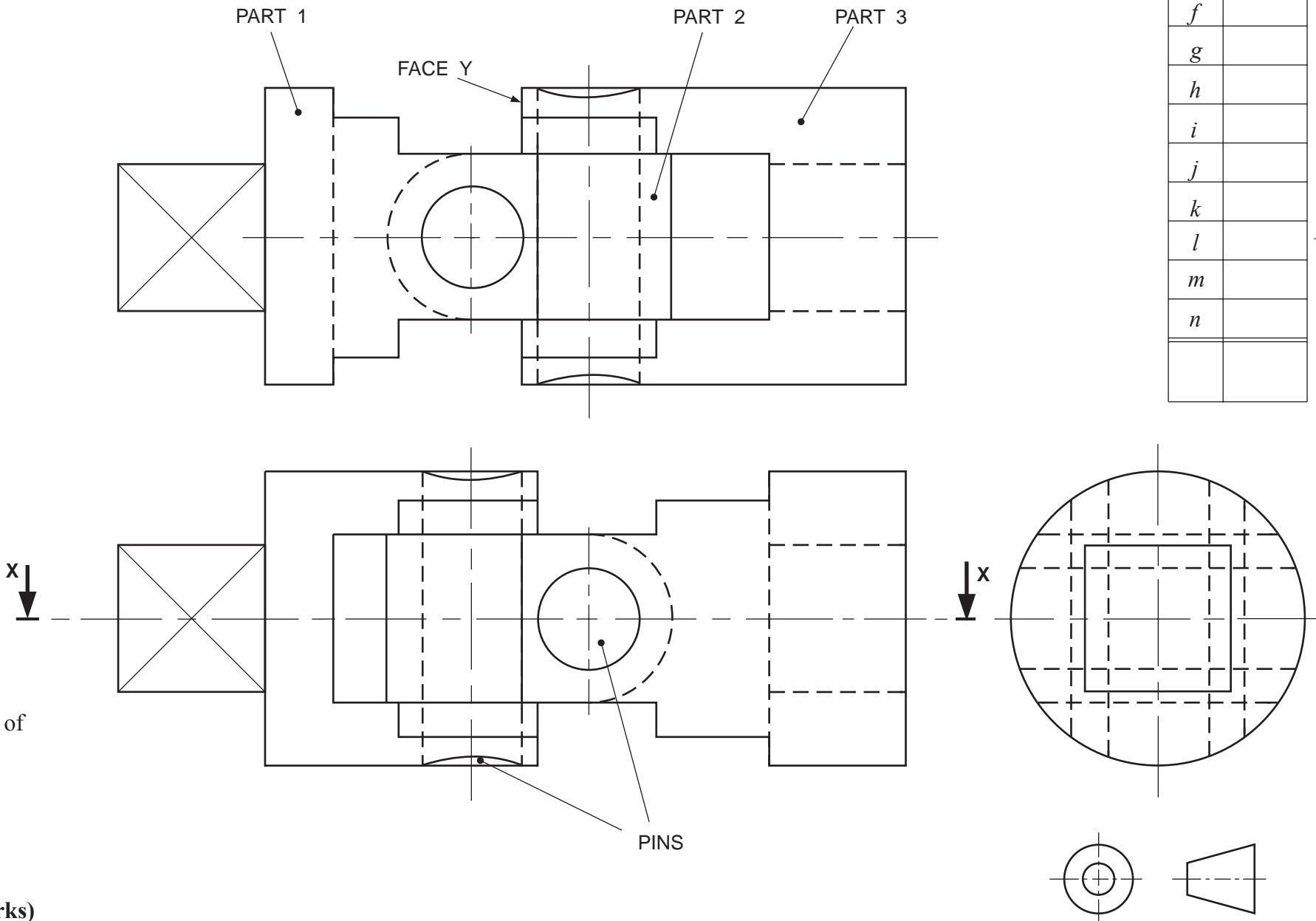


A sketch and three views of a universal joint for a socket set are shown. The joint consists of two pins and three main parts 1, 2 and 3.

- (a) Draw full size an exploded orthographic view as a section on X–X.
Do not show the pins.
- (b) Draw full size an isometric view of part 3 omitting the pin holes.
The start position is given by centre lines and face Y.
Do not show hidden detail.

(30 marks)

EXPLODED SECTION XX



<i>a</i>	
<i>b</i>	
<i>c</i>	
<i>d</i>	
<i>e</i>	
<i>f</i>	
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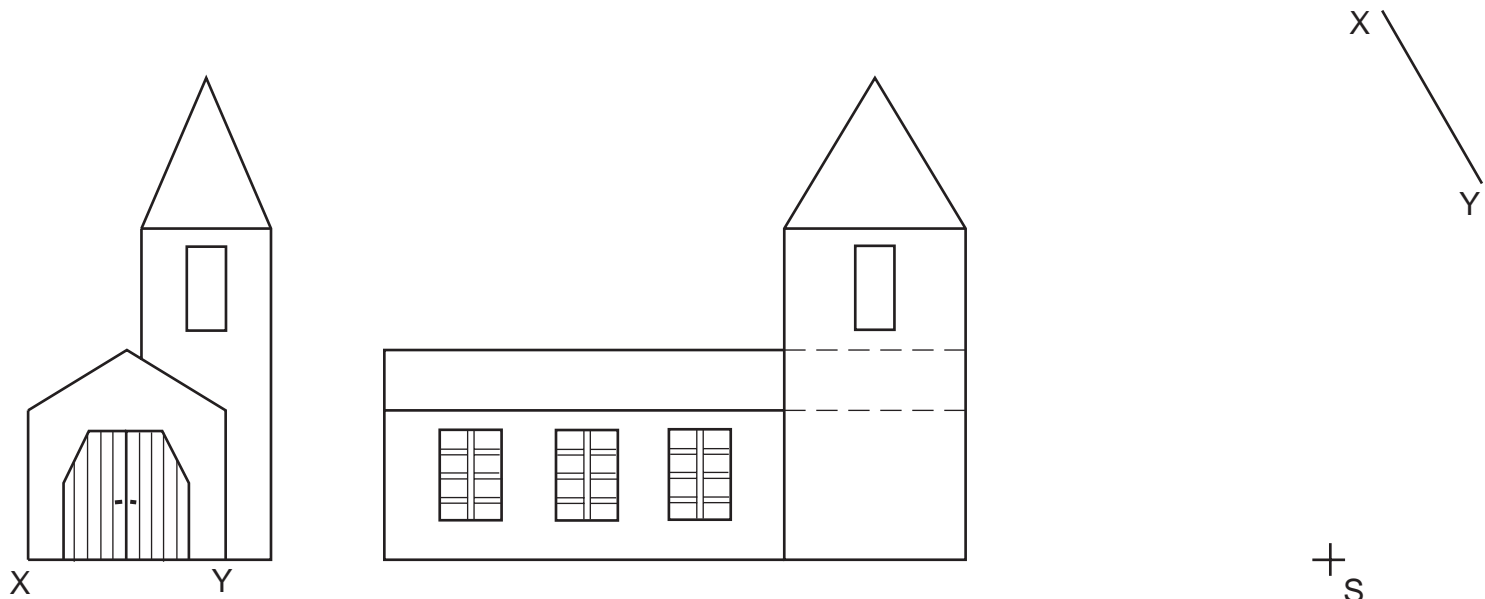
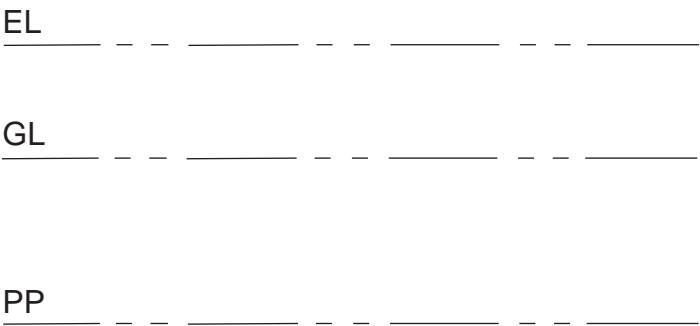
Section B

Two outline views of a church with a rectangular tower are shown.

- (a) Using the details given in the outline views, draw:
 - (i) the plan in the position indicated by line XY;
 - (ii) a measured 2-point perspective view of the church.
- (b) Sketch freehand, the details within the windows and doors.

The spectator point (S), plane of projection (PP), ground line (GL) and eye level (EL) are all given. Do not show hidden detail.

(20 marks)



<i>a</i>	
<i>b</i>	
<i>c</i>	
<i>d</i>	
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This question is on 2 sheets—see Worksheet Question 12 on reverse.

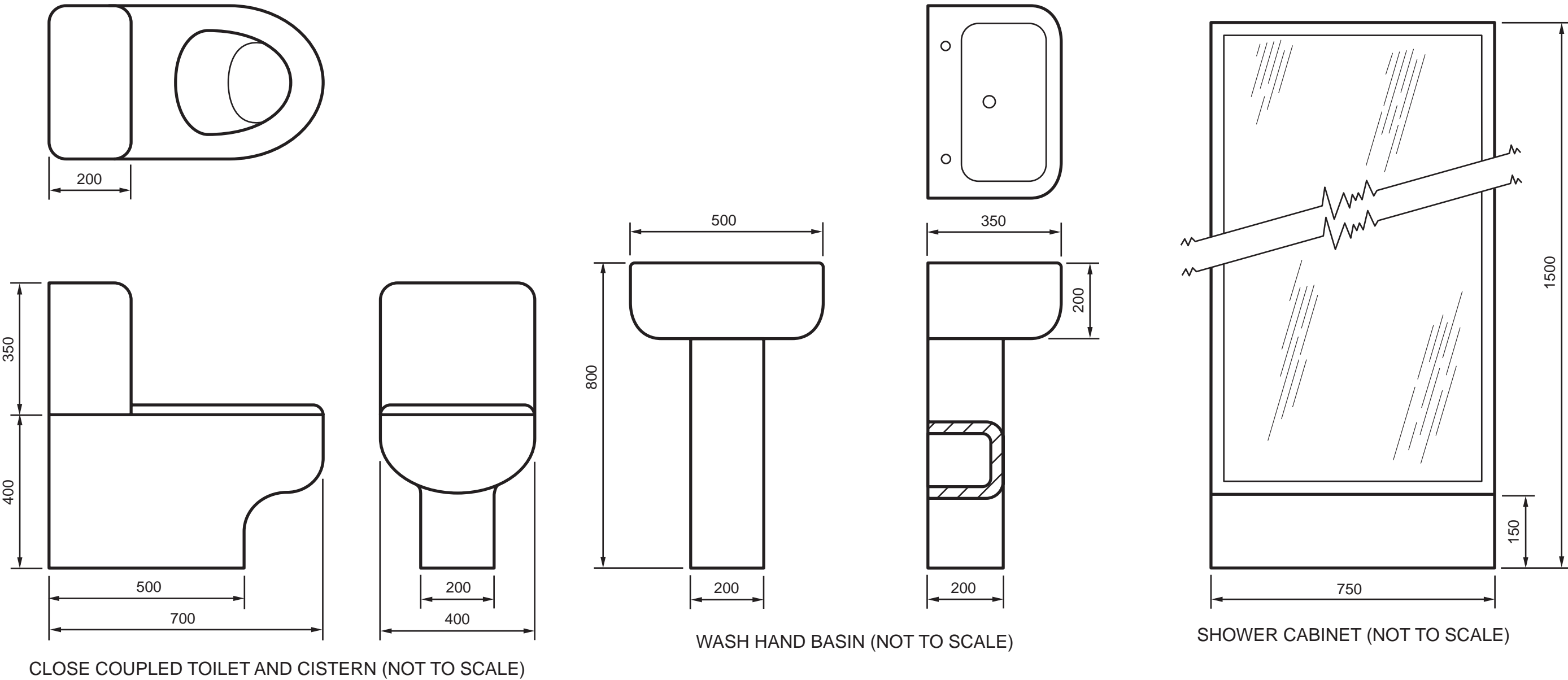
Section B

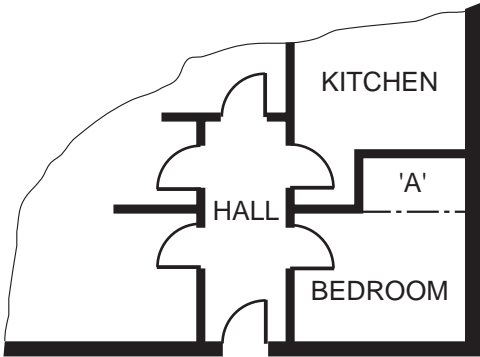
- (a) A house floor plan and a partial plan of a bedroom are shown on **Worksheet Question 12**. The area “A” is to be designed to accommodate a shower and toilet facilities.
- To a scale of 1:20 and using BS symbols, draw the following features on the partial plan:
- a partition wall 100 thick;
 - a door 700 wide, placed centrally in the partition wall, which opens inwards to area “A”;
 - a shower cabinet 750 x 750, placed in the top left corner of area “A”;
 - a wash basin 500 x 350, placed opposite the door and 550 from the shower;
 - a WC with close-coupled cistern 700 x 400, placed on the mid-point of the external wall.
- The BS symbols for the sanitary fittings are shown on **Worksheet Question 12**.
- All sizes are in mm.

- (b) The new area in the bedroom has to be explained to the customer by means of pictorial drawings.
- Using the manufacturer’s brochure details shown, draw to a scale of 1:20 on **Worksheet Question 12**, a planometric view showing:
- a shower cabinet;
 - a wash basin;
 - and a WC in the positions indicated in part (a).
- Use freehand curve work to enhance your drawing.**
- The new door and wall should not be shown.**

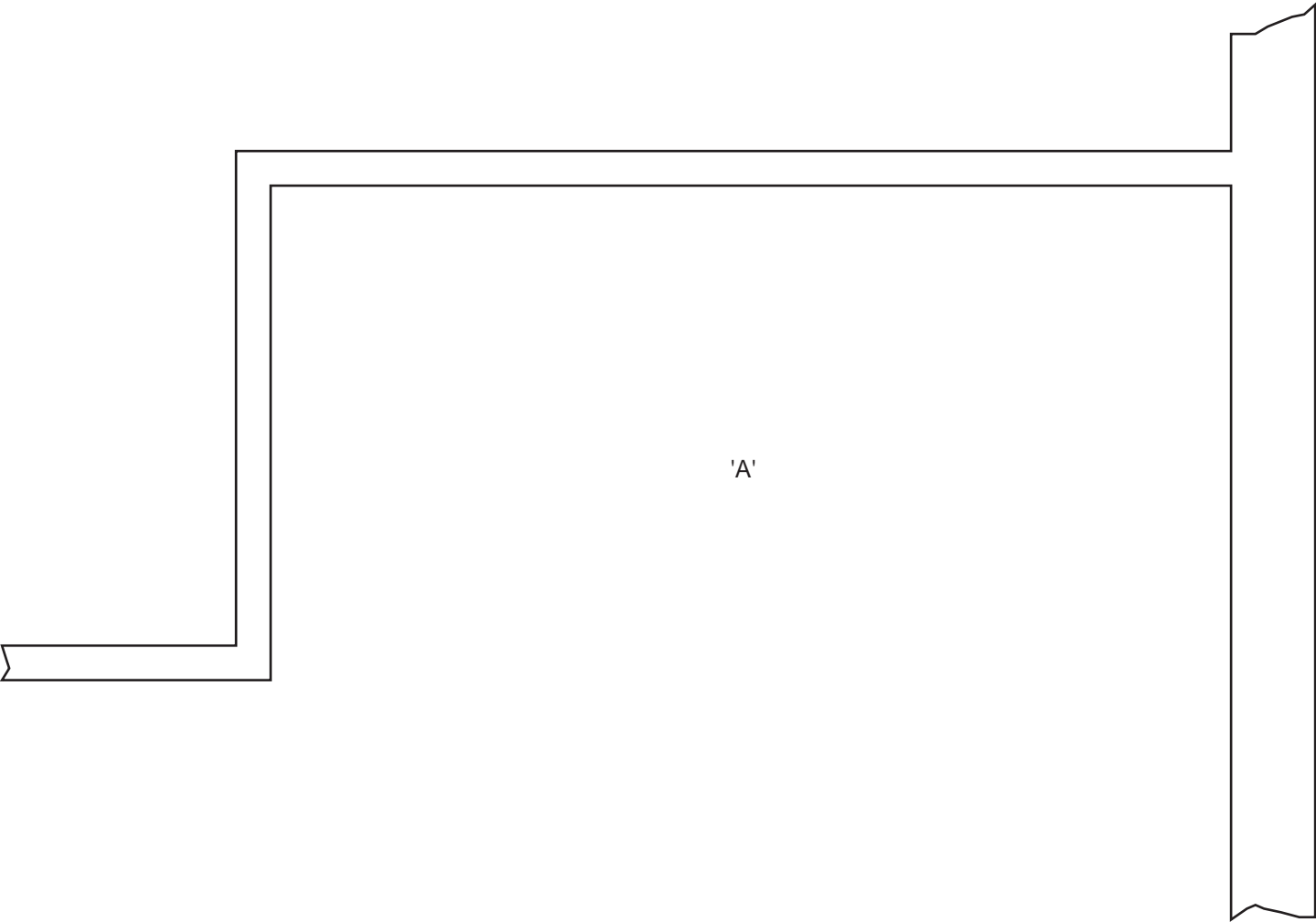
14
(20 marks)

6





HOUSE FLOOR PLAN
SCALE 1:200



PARTIAL PLAN OF SHOWER/TOILET AREA IN BEDROOM
SCALE 1:20

BS SYMBOLS FOR SANITARY FITTINGS



Wash basin



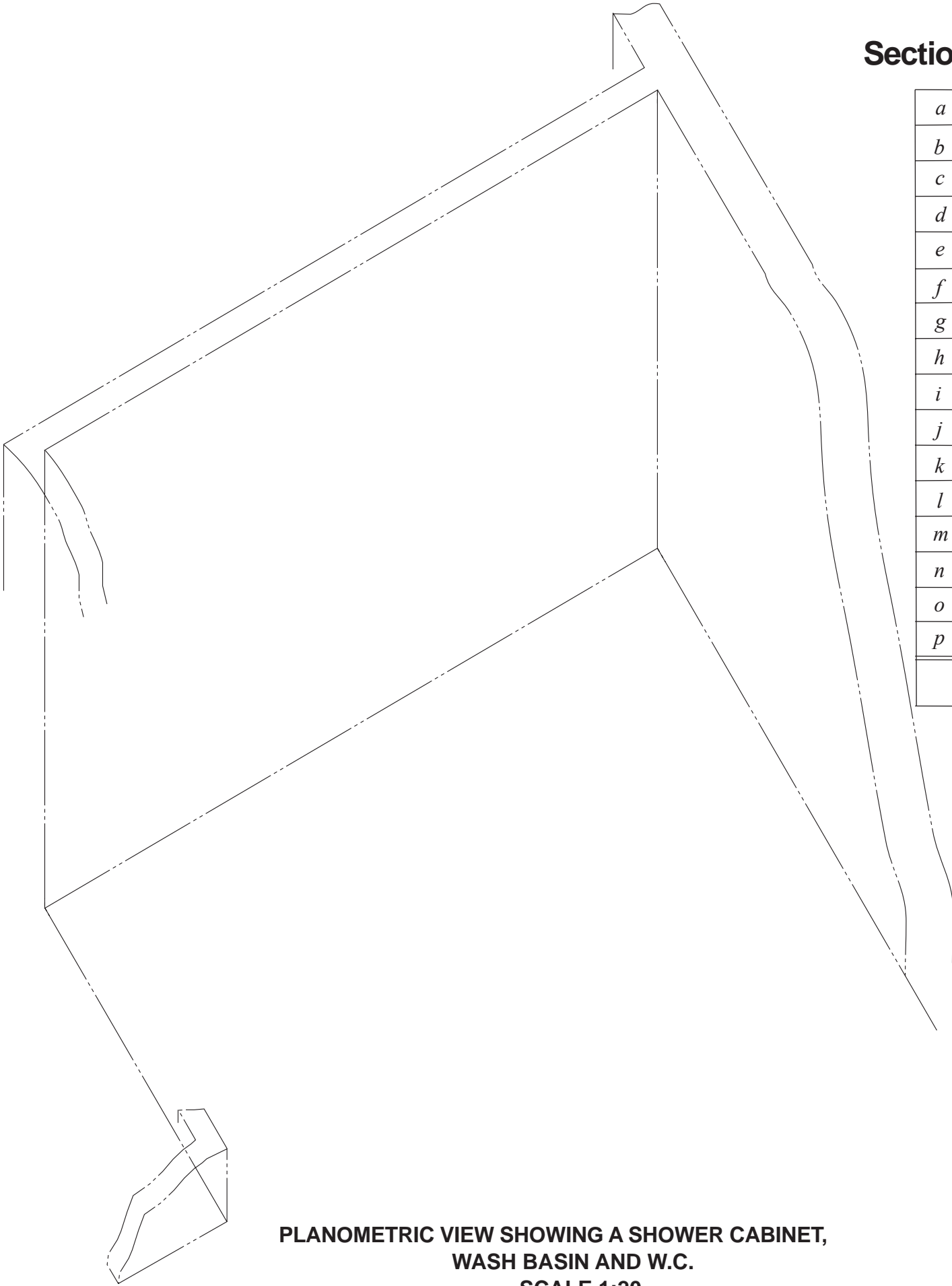
Shower tray



WC with close coupled cistern

Section B

<i>a</i>	
<i>b</i>	
<i>c</i>	
<i>d</i>	
<i>e</i>	
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PLANOMETRIC VIEW SHOWING A SHOWER CABINET,
WASH BASIN AND W.C.
SCALE 1:20

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