



THIS IS A LEGACY SPECIFICATION

DESIGN AND TECHNOLOGY

Graphic Products

Paper 3 (Foundation Tier)

1955/03

Wednesday 23 June 2010
Afternoon

Duration: 1 hour 15 minutes



Candidates answer on the Question Paper

OCR Supplied Materials:

None

Other Materials Required:

- Drawing aids may be used

MODIFIED LANGUAGE

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above and on each of the A3 answer sheets inside this folder.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Use black ink. Pencil may be used for any drawing, graphs and diagrams.
- **All** diagrams should be drawn accurately unless otherwise stated. Drawing aids may be used. Colour or shading should only be used if asked for in the question. Use your discretion where dimensions are not given.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided, however additional paper may be used if necessary.

- The number of marks for each question is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **50**.
- Marks will be awarded for the use of correct conventions.
- Dimensions are in mm unless otherwise stated.
- Question 5, product analysis, is based on the theme: **Safety signs and barricade tapes**.
- This document consists of **3** printed sheets.

For Examiner's Use	1	
	2	
	3	
	4	
	5	
	Total	

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Turn over

1 Three incomplete designs for cards showing different methods of transport are drawn below.

(a) Complete each design by adding:

(i) the missing outline to design 1;

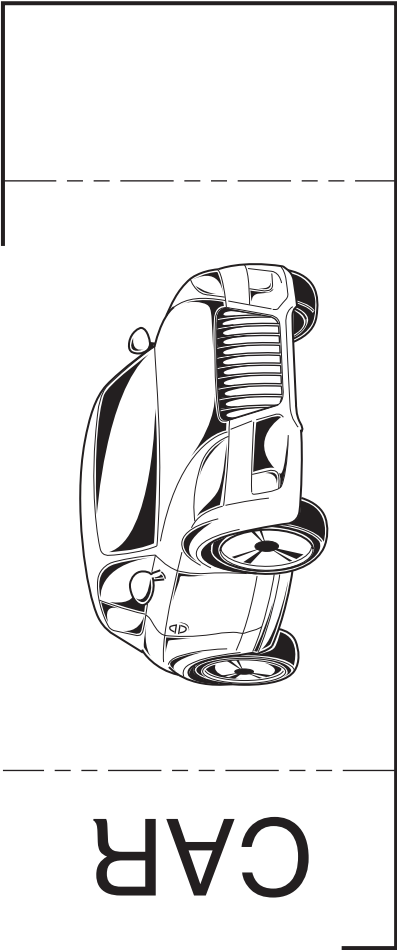
(ii) the fold lines to design 2;

(iii) the word TRAIN to design 3.

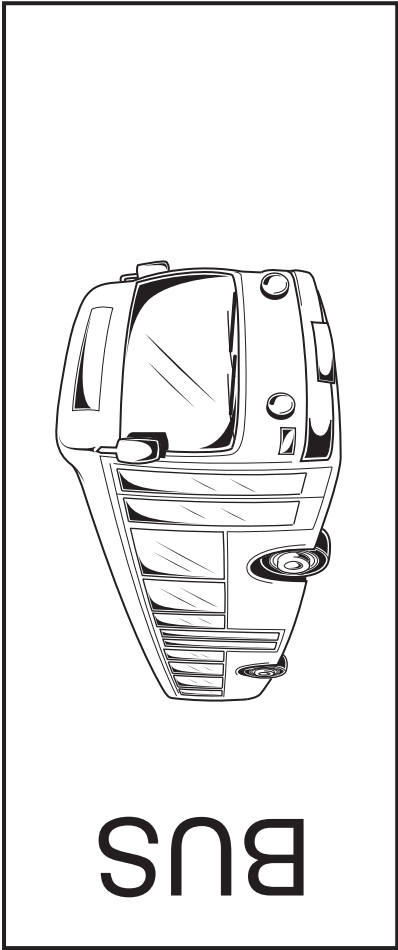
[2]

[2]

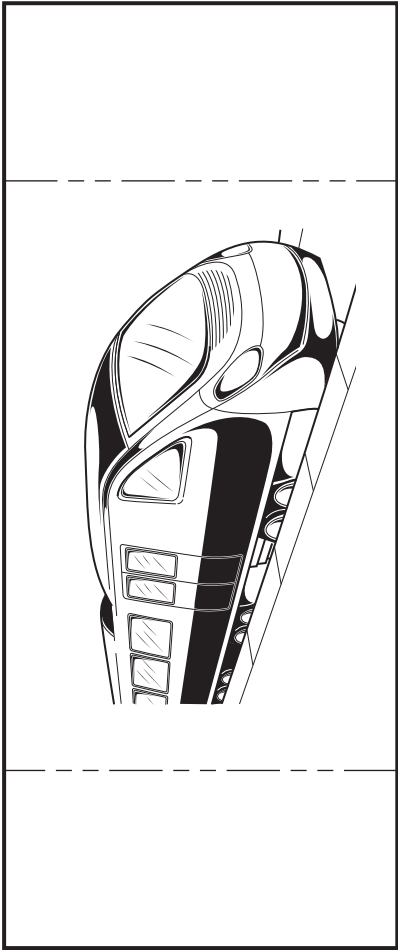
[2]



design 1



design 2



design 3

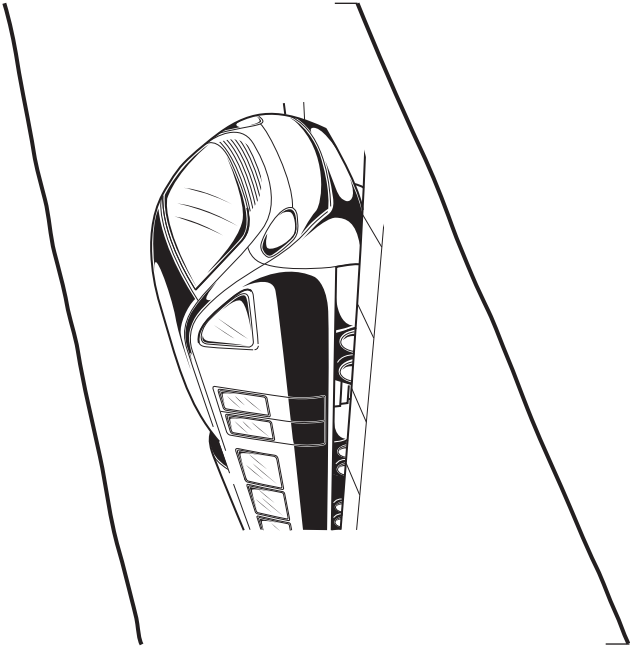
(b) The three designs are to be printed on a single sheet of card. Complete the list below by naming the other **two** pieces of school equipment that would be used to accurately cut out the designs.

1 A cutting mat

2 [1]

3 [1]

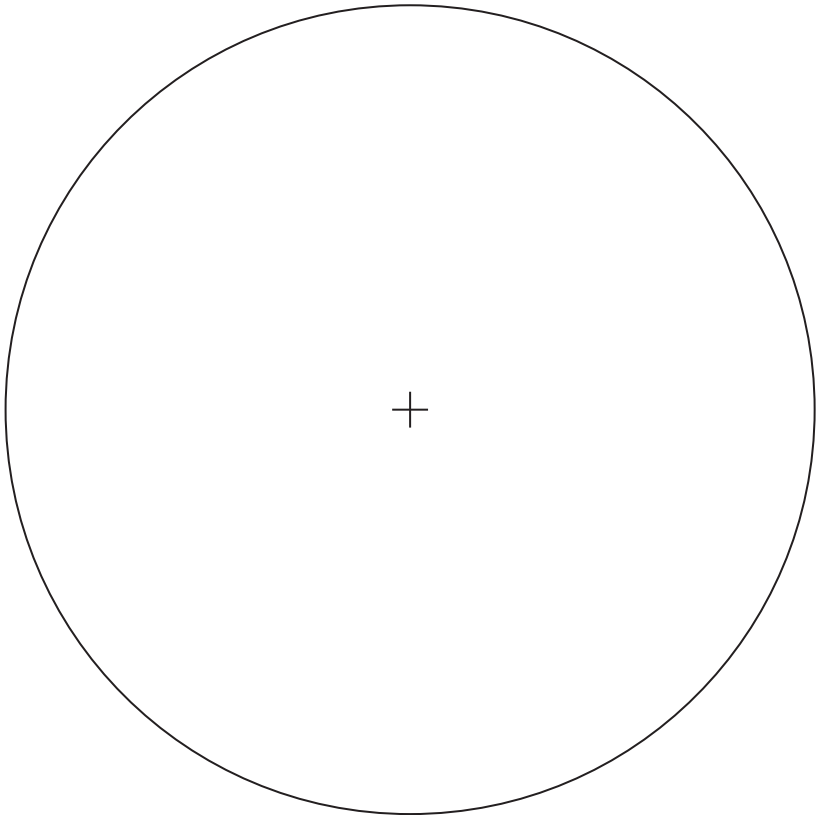
(c) Complete the pictorial sketch below to show how the 'TRAIN' card would be folded so that it stands in an upright position. [2]



2 The table below shows the results of a questionnaire on the way people travel to work.

	Car	Bus	Train	Other	Total
Number of people	135	120	60	45	360

(a) Use the circle below to accurately draw and label a **pie chart** to show the way people travel to work. [4]



(b) The most popular ‘other’ method of travelling to work was walking. State **one** environmental reason why people should be encouraged to walk to work.

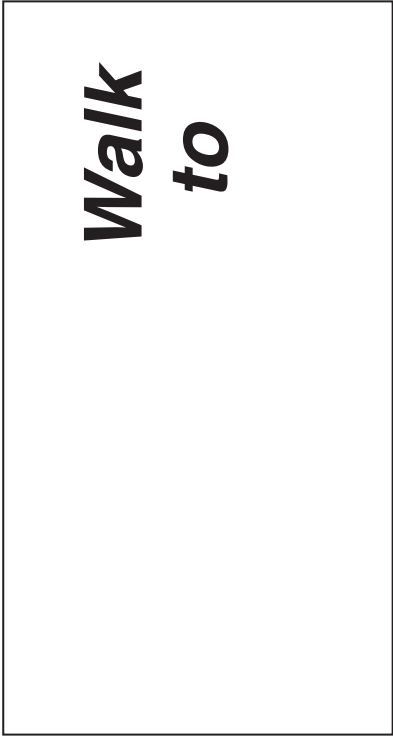
.....

..... [1]

(c) A sticker is to be designed to encourage people to walk to work. The design must include the footprint below **and** the words ‘Walk to Work’ in the font shown.

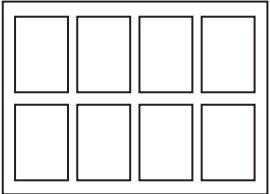


In the rectangle below sketch an idea for the ‘Walk to Work’ sticker.



[3]

(d) The ‘Walk to Work’ sticker is printed on an A4 sheet. The sheet contains 8 self adhesive stickers.

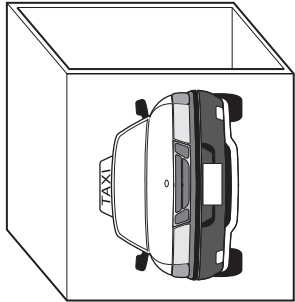


A4 sheet of stickers

State **two** advantages to the manufacturer of producing 8 rectangular stickers on an A4 sheet.

- 1 [1]
- 2 [1]

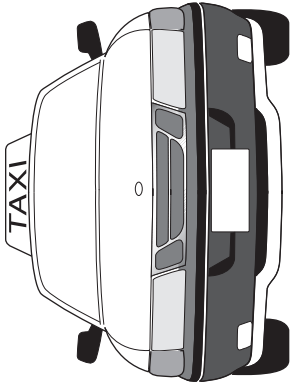
3 A sketch of a card stand used to advertise a taxi company is shown below. The four surfaces of the stand are the same size. [4]



card stand

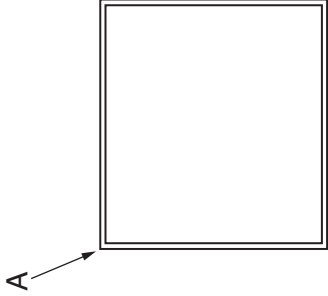
(a) Complete the **full size** drawings of the front view and plan of the stand in the space below. [4]

plan

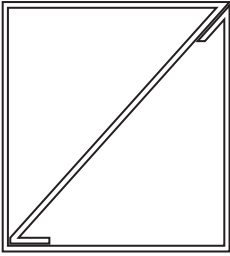


front view

(b) Use a sketch and notes to show what happens to the stand when a load is applied to A. [1]



(c) An end view of a modified stand is shown below.



end view of modified stand

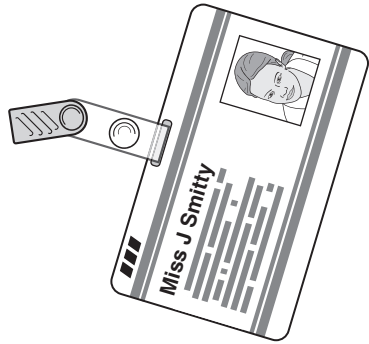
(i) In the space below sketch the **one piece** development (net) required to make the modified stand. Clearly show all fold lines and glue tabs. [3]

(ii) Explain why the modified stand is a better structure.

.....
.....
..... [2]

4 An employee identity card made from laminated paper is shown to the right. The card is produced using ICT and then laminated.

(c) An alternative identity card is shown below. This card uses a magnetic strip to store personal information.

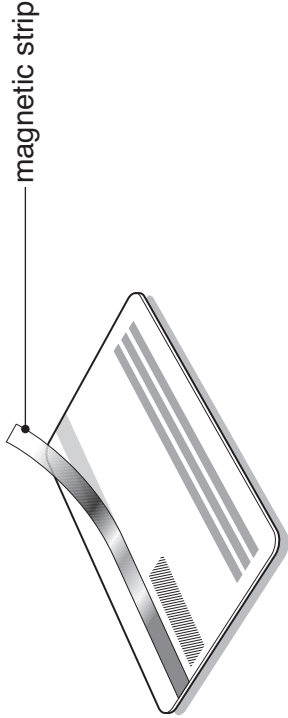


(a) Complete the table below to describe the stages required to make the identity card.

Stage	Description	
Personal details	Use a word processing package to type the personal details into a text box. Copy and paste the text box on the electronic template of the identity card.	
Photograph		
Printing	Personal details and photograph printed on a 85 mm x 54 mm piece of paper.	[3]
Laminating		[2]

(b) State **one** reason why identity cards are usually **no larger** than credit/debit cards (85 mm x 54 mm).

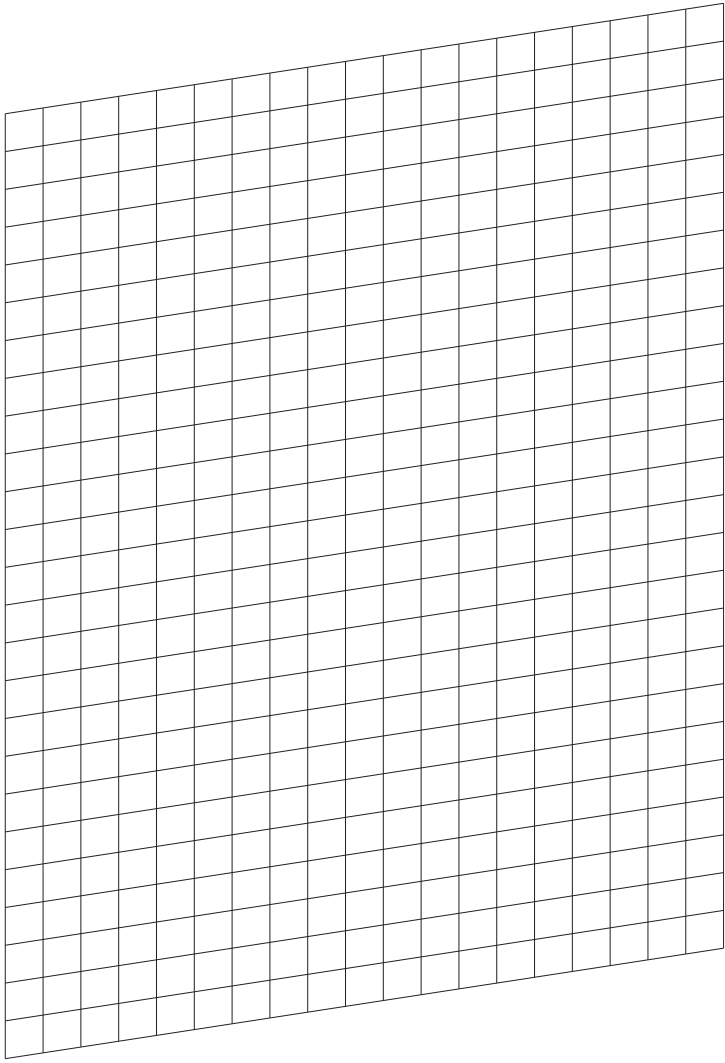
.....
..... [1]



(i) State **one** advantage to the **card holder** of having their personal details stored on the magnetic strip.
..... [1]

(ii) State **one** advantage to a **company** of having the personal details of employees stored on the magnetic strip.
..... [1]

(d) The identity card is to have a company logo printed on it. Use the grid below to sketch **one** idea for a company logo based upon the letters AK. [2]



5 (a) An emergency exit sign is shown below. The sign is available in self adhesive vinyl **or** 1 mm thick rigid PVC.



(i) State **one** advantage of using the self adhesive vinyl version of the sign.

.....

..... [1]

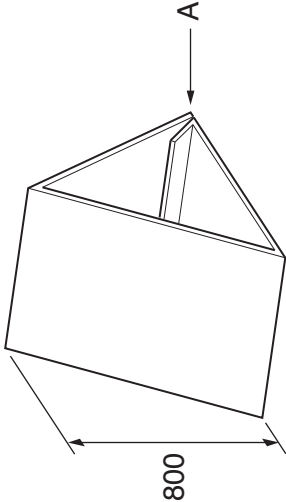
(ii) Sketch a simple modification to the 1 mm thick rigid PVC sign that would make it safer to handle. [1]

(iii) Give one reason why green and white colours are used for emergency exit signs.

.....

..... [1]

(b) A sketch of an outdoor safety sign is shown below. The sign is made from a single sheet of corrugflute that is folded and fastened at point A.

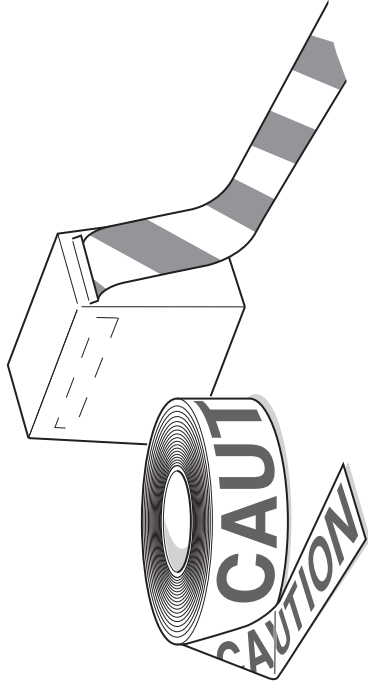


(i) State **one** reason why corrugflute is a suitable material for the safety sign.

..... [1]

(ii) Use a sketch and notes to show a temporary method of joining the corriflute sheet at point A. [2]

(c) A roll of barricade tape and its card packaging is shown below.



(i) State **one** reason why the **customer** might choose a biodegradable barricade tape.

..... [1]

(ii) Use a sketch and notes to show how the packaging for the barricade tape has been designed to allow for easy use of the tape. Show **one** modification to the packaging that will allow the tape to be cut. [3]



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