

RECOGNISING ACHIEVEMENT

GENERAL CERTIFICATE OF SECONDARY EDUCATION

DESIGN AND TECHNOLOGY

1955/04

Graphic Products
Paper 4 (Higher Tier)

Wednesday 23 June 2010
Afternoon
Duration: 1 hour 30 minutes

Candidates answer on the Question Paper

OCR Supplied Materials:

None

Other Materials Required:

- Drawing aids may be used

Candidate Forename		Candidate Surname		Centre Number						Candidate Number					

MODIFIED LANGUAGE

INSTRUCTIONS TO CANDIDATES

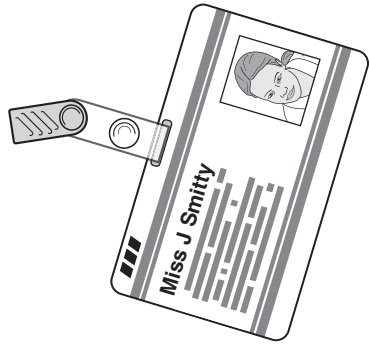
- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above and on each of the A3 answer sheets inside this folder.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Use black 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.

INFORMATION FOR CANDIDATES

- 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 2, 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	

- 1** An employee identity card made from laminated paper is shown to the right. The card is produced using ICT and then laminated.
- (a)** Complete the table below to describe the stages required to make the identity card.



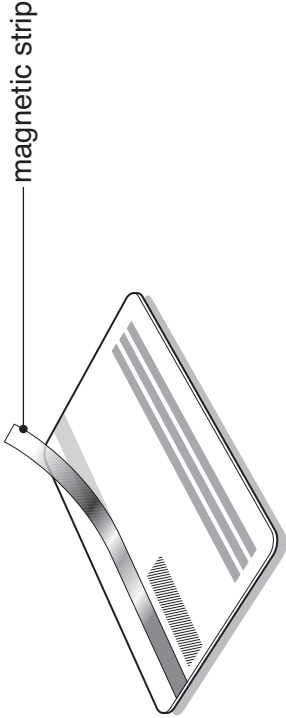
Stage	Description
Personal details	Use a word processing package to type the personal details into a text box. Copy and paste the text box on the electronic template of the identity card.
Photograph	
Printing	Personal details and photograph printed on a 85 mm x 54 mm piece of paper. [3]
Laminating	

[2]

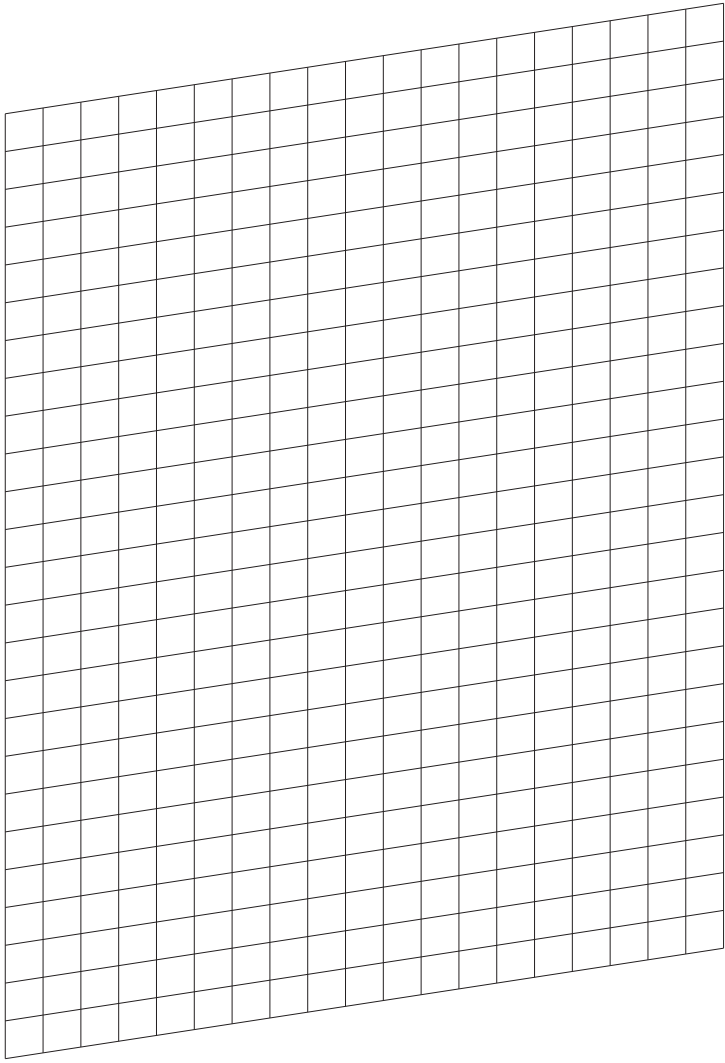
- (b)** State **one** reason why identity cards are usually **no larger** than credit/debit cards (85 mm x 54 mm).

..... [1]

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



- (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]



2 (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]

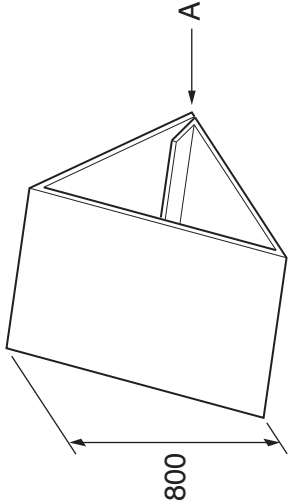
(ii) Sketch a simple modification to the 1 mm thick rigid PVC sign that would make it safer to handle. [1]

(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 corriflute that is folded and fastened at point A.

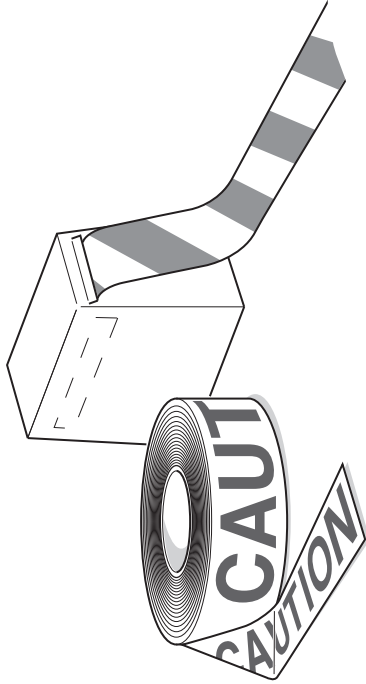


(i) State **one** reason why corriflute is a suitable material for the safety sign.

..... [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.

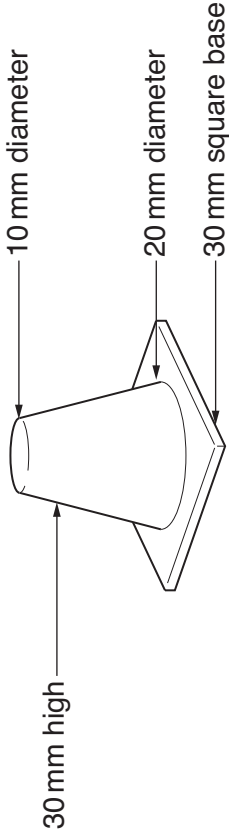


(i) State **one** reason why the **customer** might choose a biodegradable barricade tape.

..... [1]

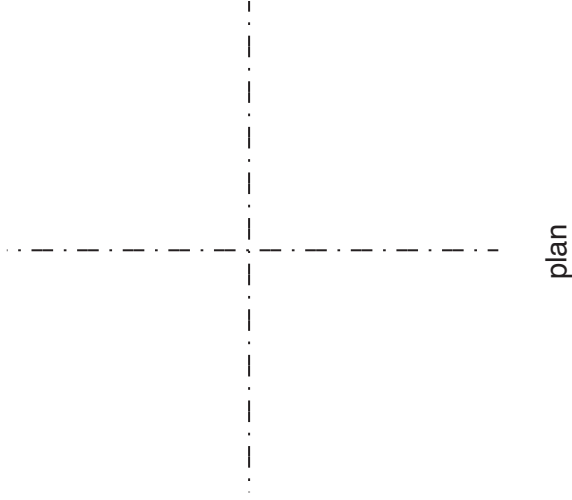
(ii) Use a sketch and notes to show how the packaging for the barricade tape has been designed to allow for easy use of the tape. Show **one** modification to the packaging that will allow the tape to be cut. [3]

3 A pictorial view of a counter in a road safety game is shown below.



(a) (i) Complete the 2:1 scale drawings of the front view and plan of the counter on the given centre lines. Assume any dimensions not given. [4]

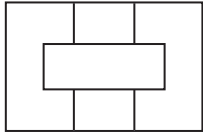
(ii) Correctly add one dimension to the front view of the counter. [2]



(b) A pictorial drawing of another counter is shown below. Add shading to the drawing to make it appear three dimensional. [2]



(c) A design is to be printed on the counter. Add the design to the pictorial view below. [2]

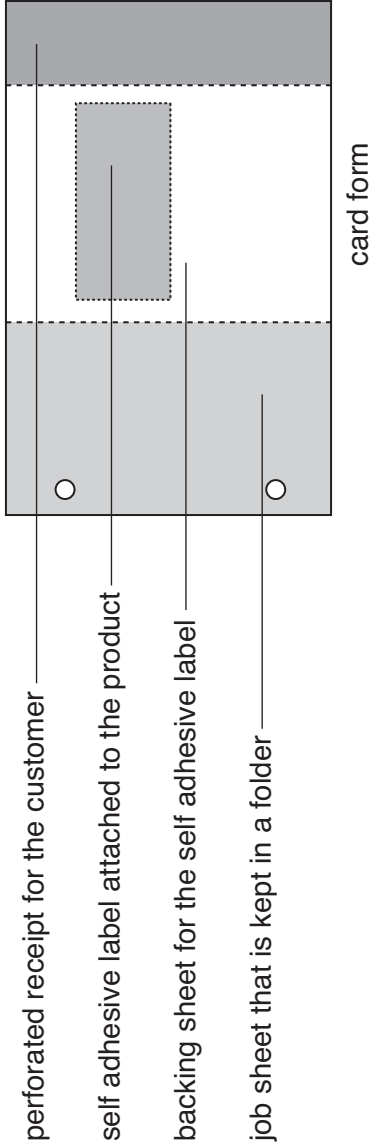


4 The table below shows the type and number of products returned to an electrical repair centre in a year.

Product	Number
Computer equipment	1200
Photographic equipment	950
Domestic appliances	650
Mobile telephones	850

(a) In the space below construct a **pictorial (3D) bar chart** to show the number and the type of products returned to the electrical repair centre in a year. [4]

(b) A card form is used to record the details when products are returned to the electrical repair centre. A sketch of a design for the card form is shown below.



In the space below sketch an **exploded pictorial view** of the four parts of the card form. [4]

(c) The card form is to be improved by a computer based system with a barcode attached to each product. Explain how this system will improve **communication** in the electrical repair centre.

.....

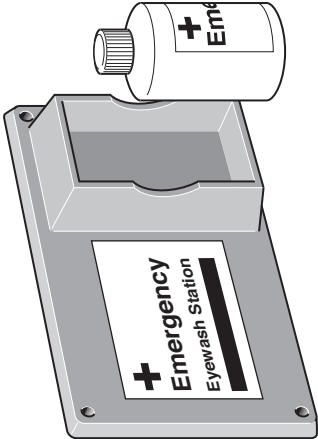
.....

..... [2]

5 A drawing of an eye wash station is shown on the right.
The main parts of the eye wash station are:

- a vacuum formed holder
- self adhesive vinyl labels
- a blow moulded bottle

(a) Complete the table below to explain the reasons for the three main design features of the vacuum formed holder.



Design feature	Reason
Sloping sides	[1]
An indentation in each corner	[1]
Part of the sides of the bottle holder are lower	[1]

(b) The label on the blow moulded bottle is made from self adhesive vinyl. Explain why self adhesive vinyl is suitable for this specific application.

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

(c) Draw an isometric sketch of the former required to make the vacuum formed holder.

[6]



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