

Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

Leave blank

General Certificate of Secondary Education
Summer 2004

**DESIGN AND TECHNOLOGY:
GRAPHIC PRODUCTS (SHORT COURSE)**

3553/F

F



Foundation Tier

Wednesday 16 June 2004 9.00 am to 10.30 am

<p>In addition to this paper you will require:</p> <ul style="list-style-type: none"> • a pen, pencil, ruler, eraser, pencil sharpener and coloured pencils. • Marker pens and 45/60 degree set squares may also be used.
--

For Examiner's Use			
Number	Mark	Number	Mark
1			
2			
3			
4			
5			
6			
7			
Total (Column 1)	→		
Total (Column 2)	→		
TOTAL			
Examiner's Initials			

Time allowed: 1 hour 30 minutes

Instructions

- Use blue or black ink or ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions in the spaces provided.
- Detach the blue sheet from the back of the examination paper to use in between the sheets to prevent ink bleeding through to the next sheet.
- Do **not** hand in the blue sheet at the end of the examination.

Information

- The maximum mark for this paper is 100.
- Mark allocations are shown in brackets.
- Wherever calculations are needed you should show your working.
- All dimensions are given in millimetres unless otherwise stated.
- You are reminded of the need for good English and clear presentation.

Advice

Answer the questions in the order given.

Read the following information carefully before you begin the questions which follow.

CAR CARE PRODUCTS

A national chain of garages, called *AI Cars*, is to give the buyers of its cars a free gift. The gift is a high quality, car air freshener in a specially designed box.

The car air freshener is in a vacuum formed insert inside the ‘tray’, which slides into a card sleeve. The sleeve is to be suitably decorated and finished to make a quality item.

An assembled gift box, without the car air freshener, is shown below (**Figure 1**).

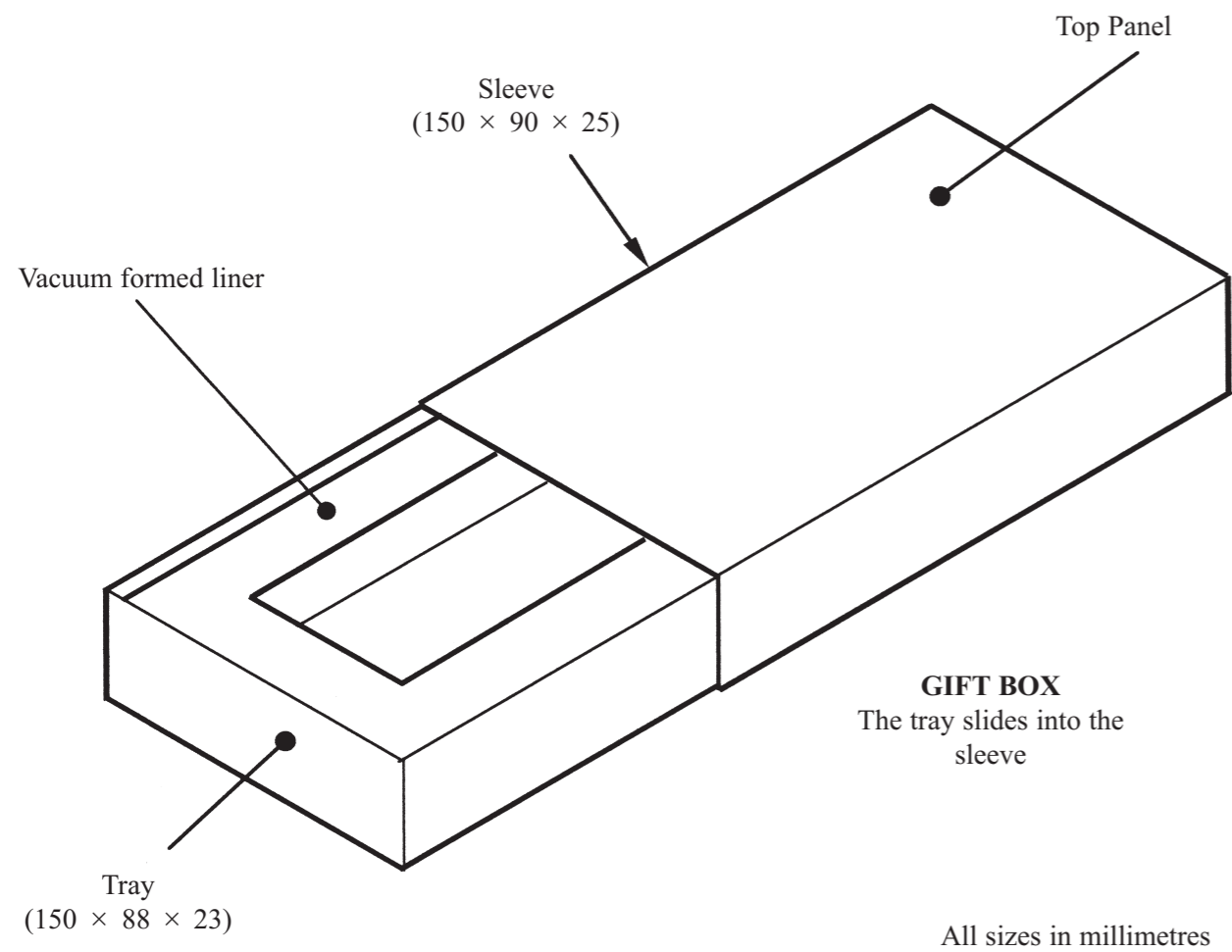


Figure 1

Question 1 is about representing data and is worth 6 marks.

Spend about 5 minutes on this question.

- 1 The car air freshener must have a pleasant perfume or fragrance. A survey was taken to find out which fragrances were most popular. The results are given below.

Results of survey	
<i>Fragrance</i>	<i>Percentage</i>
Fresh Flowers	30%
Sea Spray	10%
Mountain Breeze	40%
Summer Fruits	20%

Complete the bar chart (**Figure 2**) and key, in the same style, to show the results of the survey.

Marks will be awarded for:

- (a) accuracy; (3 marks)
- (b) colour quality; (2 marks)
- (c) key. (1 mark)

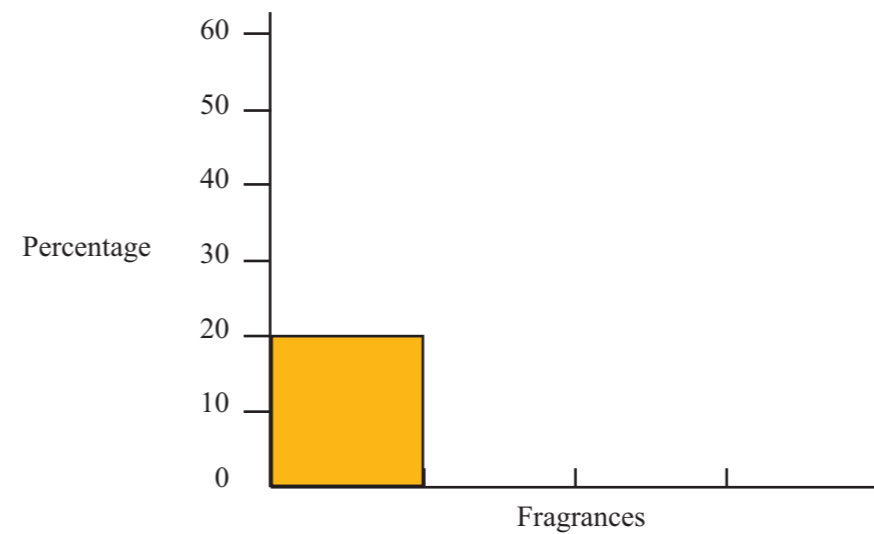


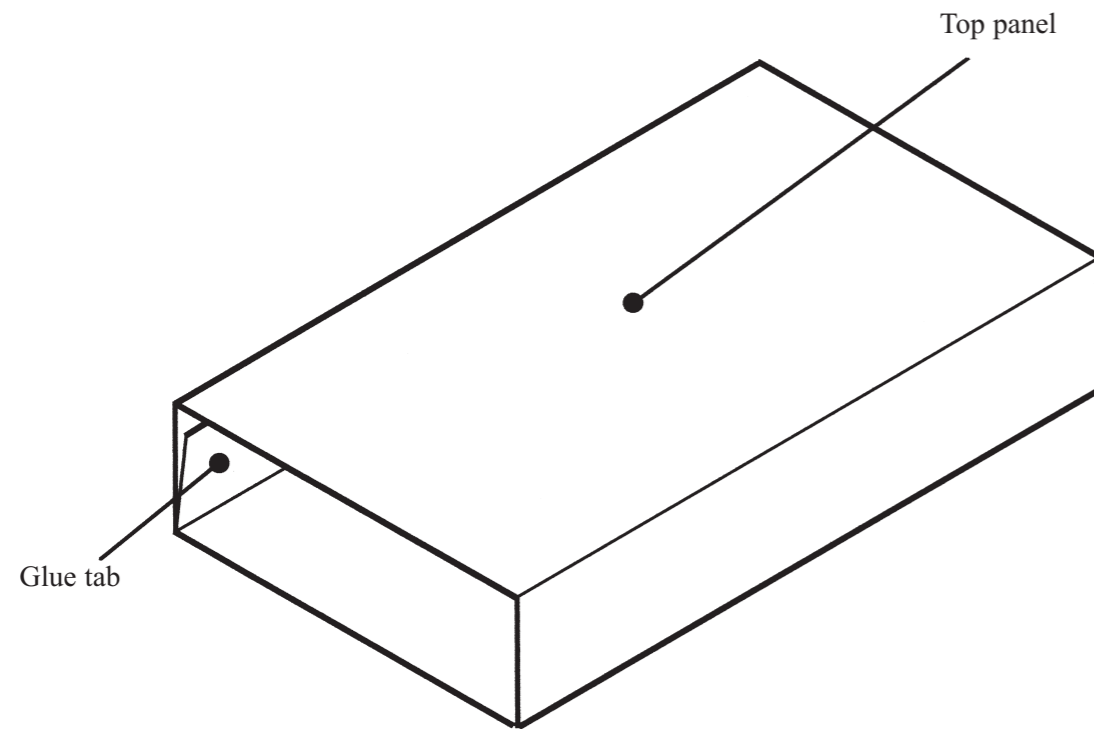
Figure 2

KEY	
	Fresh Flowers
	Sea Spray
	Mountain Breeze
	Summer Fruits

Question 2 is about designing and is worth 15 marks.

Spend about 15 minutes on this question.

The pictorial drawing below (**Figure 3**) shows the card sleeve of the gift box. The **top panel** is to be printed with suitable graphic detail and relevant information.



GIFT BOX SLEEVE

Figure 3

Do NOT put your designs on
this diagram

DO NOT ANSWER ON THIS SHEET

- 2 You are asked to make the gift box **top panel** appealing to customers. It is to be decorated with a suitable design and information.

The following specification has been provided by *A1Cars (A1C)* to help you:

The **top panel** must:

- have **graphic detail** which suggests **mountains**;
- use **colours** which gives the impression of a quality product;
- have a **logo** based on the letters **A1C**;
- use **embossing** to enhance the sleeve's design.

Sketch a variety of images and ideas that meet this specification.

Add notes to explain your ideas.

Marks will be awarded for:

- | | |
|----------------------------|------------|
| (a) a variety of images; | (10 marks) |
| (b) use of colour; | (2 marks) |
| (c) evaluating your ideas. | (3 marks) |

ANSWER QUESTION 2 ON THE NEXT SHEET

Question 2 continues on Sheet 3

Question 2, continued

Use the specification on Sheet 2 for the **top panel** of the gift box:

- In box 1 sketch **three** designs which suggest **mountains**; (6 marks)
- Indicate the **colours** to be used to suggest a quality product; (1 mark)
- In box 2 develop **one logo** based on the letters **A1C**; (3 marks)
- In box 3 show where **embossing** can be used to enhance your designs; (2 marks)
- **evaluate** your ideas. (3 marks)

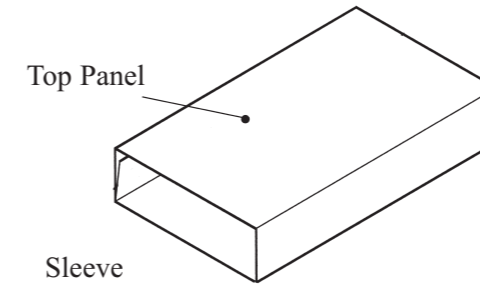


Figure 4

Box 1, sketch **three** designs which suggest **mountains**. Indicate **colours** to suggest a quality product.

Evaluation

.....

Box 2, develop **one** logo based on the letters **A1C**.

Evaluation

.....

Box 3, show how **embossing** could be used to enhance your design.

Evaluation

.....

Question 3 is about presentation and is worth 27 marks.

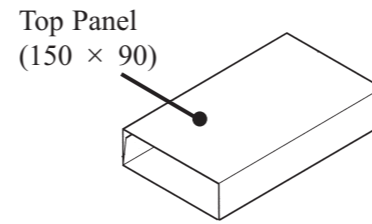
Spend about 25 minutes on this question.

- 3 (a) Use the given corner to draw a full size outline of the **top panel** of the gift box. *(2 marks)*
- (b) From Question 2 combine your best ideas and draw a final coloured presentation drawing of the top panel of the gift box.

This question is worth 19 marks.

Marks will be awarded for:

- (i) use of the specification; *(4 marks)*
- (ii) quality of drawings; *(3 marks)*
- (iii) ideas from Question 2; *(2 marks)*
- (iv) suitable layout; *(5 marks)*
- (v) quality of colouring. *(5 marks)*



Pictorial Drawing of the sleeve

Figure 5

- (c) The bottom panel of the sleeve is to be printed with information for the consumer.

Name and explain **two** different pieces of consumer information that could be included on this product.

- (i) Example 1 – suitable information.

.....
(1 mark)

Reason for this information.

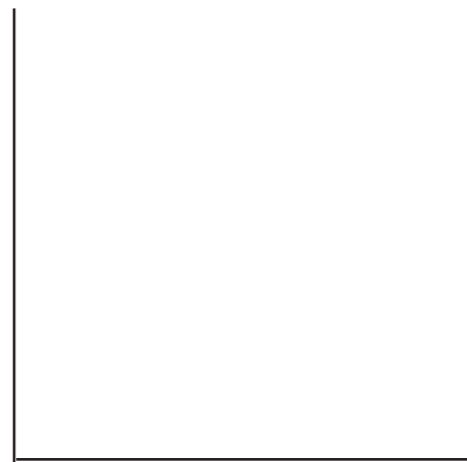
.....
.....
.....
(2 marks)

- (ii) Example 2 – suitable information.

.....
(1 mark)

Reason for this information.

.....
.....
.....
(2 marks)



A corner of the top panel

Question 5 is about enlargements and British Standards and is worth 14 marks.

Spend about 10 minutes on this question.

5 One type of car air freshener is cut from a thin foam type material and attached to the car's rear view mirror.

(a) An outline of the air freshener has been drawn but must be enlarged before final production.

(i) Enlarge the given design onto the larger grid below. (5 marks)

(ii) Using British Standard conventions, add to the enlarged outline:

- the overall width, and
- give the scale used. (4 marks)

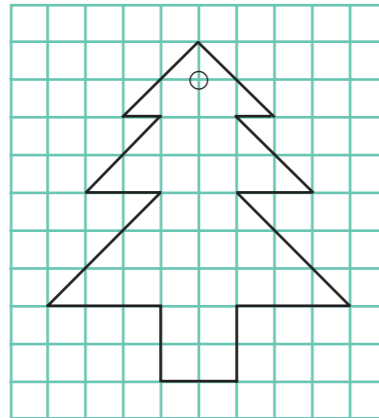
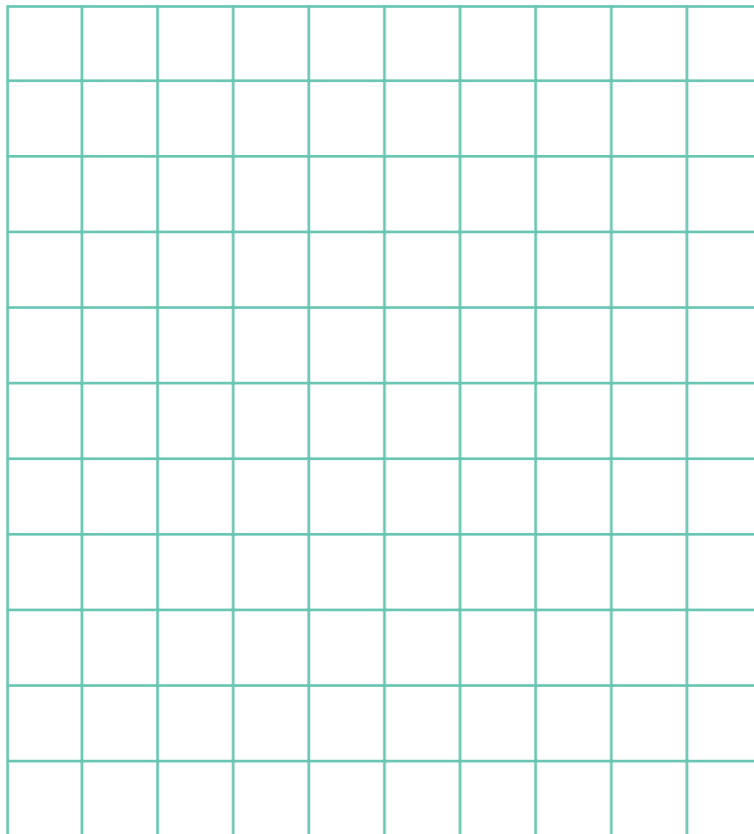


Figure 8



Scale _____ : _____

(b) Using sketches and notes design a method of attaching the air freshener to a car's rear view mirror. (5 marks)

Question 6 is about materials and is worth 8 marks.

Spend about 10 minutes on this question.

6 Materials have properties which make them suitable for different uses.

(a) Study the list of materials below and give a different reason why each is suitable for the given use.

One example has been completed for you.

Materials	Typical Use	Reason
Vegetable Protein Board	Fast food box	<i>Biodegradable, made from waste material</i>
Polystyrene sheet	'Blister' packs	
Acrylic sheet	Shop signs	
Corrugated Board	Packaging	
Block Foam	Model buildings	

(4 marks)

(b) Smart materials have replaced more traditional materials. The forehead thermometer (**Figure 9**) is an alternative to a glass thermometer.



Reproduced by kind permission of The Boots Company PLC

Figure 9

Explain how a smart material is used in this type of thermometer.

.....

.....

.....

.....

.....

.....

(4 marks)

Question 7 is about environmental, cultural and social issues and is worth 17 marks.

Spend about 15 minutes on this question.

7 Figure 10 shows three different car air fresheners with their packaging.



Figure 10

(a) Give two reasons why air fresheners are contained inside sealed packages.

Reason 1

Reason 2

(4 marks)

(b) (i) Is the source of material used for the backing card in Figure 10, a renewable or non-renewable material?

.....
(1 mark)

(ii) Explain the benefits of using card on the world's natural resources.

.....
.....
.....
.....

(2 marks)

(c) Figure 11 is a symbol that can be found on some packages.



Figure 11

(i) Explain what this symbol tells you about the package.

.....
.....
(2 marks)

(ii) Explain why green is a suitable colour for the symbol.

.....
.....
(2 marks)

(iii) Explain what the circular arrow indicates.

.....
.....
(2 marks)

(iv) Explain the meaning of the number in the symbol (Figure 11).

.....
.....
(2 marks)

(d) Explain why food packages should be made from new card.

.....
.....
(2 marks)

END OF QUESTIONS

Permission to reproduce all copyright material has been applied for. Efforts to contact some copyright owners have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements in future papers if notified.

Copyright © 2004. AQA and its licensors. All rights reserved.