

Surname					Other Names				
Centre Number					Candidate Number				
Candidate Signature									

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General Certificate of Secondary Education  
June 2005

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

3553/F

**F**



**Foundation Tier**

Wednesday 8 June 2005 1.30 pm to 3.00 pm

<p><b>In addition to this paper you will require:</b></p> <ul style="list-style-type: none"> <li>a pen, pencil, ruler, eraser, pencil sharpener and coloured pencils.</li> <li>You may use marker pens and 45/60 degree set squares.</li> </ul>
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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.

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			

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

### **INDIVIDUAL SOFT DRINK PACKAGE**

It is important that the human body has a regular intake of fluids especially when taking part in strenuous physical exercise and during hot weather. This helps to prevent dehydration and replaces vital nutrients that have been lost.

A soft drinks manufacturer called *AQAPOP* is to introduce a new non-carbonated drink.

The type of container is important, it must be suitable for the application. The container is to be printed with text and graphics. It is targeted at young adults who engage in physical exercise.

**Figure 1** shows a range of possible containers for the new drink.

### **ACKNOWLEDGEMENTS**

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**Image 5** – reproduced with kind permission from Glaxo Smith Kline.

**Image 6** – reproduced with kind permission from Robinson’s Soft Drinks Ltd.

For copyright reasons it has not been possible to include all of the images on the original Figure 1. Figure 1 showed a range of possible containers for the new drink including soft drinks in plastic bottles, cartons, cans and foil containers.

A full copy of the paper can be obtained from Centre Services at Devas Street, Manchester. e-mail: [Despatches-M@aqa.org.uk](mailto:Despatches-M@aqa.org.uk) Tel: 0161 953 1180.

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This question is about representing data and is worth 6 marks.

Spend about 5 minutes on this question.

1 A survey of young people was carried out to find out which type of container they preferred for the new drink.

The results of the survey are shown below.

Metal can	Glass bottle	Plastic bottle	Tetra Brik
3	1	6	2

Table 1

Complete and colour the *pie chart* and *key* (Figure 2) using this information.

Marks will be awarded for:

- (a) accuracy; (2 marks)
- (b) effective use of colour; (2 marks)
- (c) completing key. (2 marks)

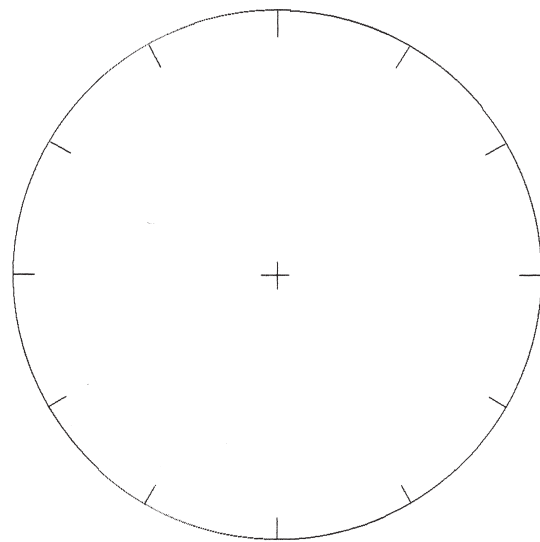


Figure 2

KEY	

This question is about a specification and is worth 3 marks.

Spend about 3 minutes on this question.

2 As a result of the survey a plastic bottle has been chosen for the new drink.

You have been asked to design the graphics for a *wrap round* label (Figure 3).

AQAPOP has provided the following specification points for the graphics to guide you

- Point 1 AQAPOP must be **clearly visible** on the label.
- Point 2 The design must **appeal to young people**.
- Point 3 The label design must be based on **physical activity** or **sport**.

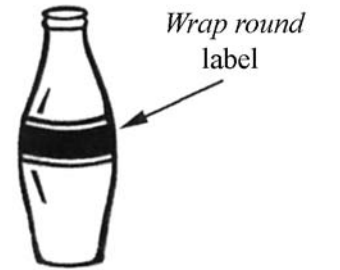


Figure 3

Give **three** more specification points for the graphics on the label.

- (i) Point 4 ..... (1 mark)
- (ii) Point 5 ..... (1 mark)
- (iii) Point 6 ..... (1 mark)

This question is about generating designs and is worth 21 marks.

Spend about 15 minutes on this question.

3 The plastic bottle (Figure 4) has a label around it.

(a) Sketch **two** different ideas for your label design.

This part of the question is worth 18 marks.

One label and its notes have been started for you.

Marks will be awarded for:

- (i) effective use of the information from Question 2; (6 marks)
- (ii) evidence of design development; (3 marks)
- (iii) quality of your sketches; (3 marks)
- (iv) indicating colours used to enhance the product; (3 marks)
- (v) clear notes to explain your label's design. (3 marks)

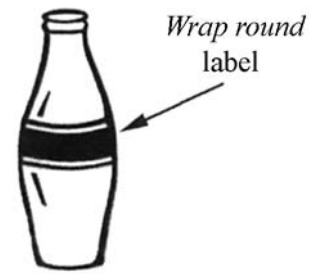


Figure 4

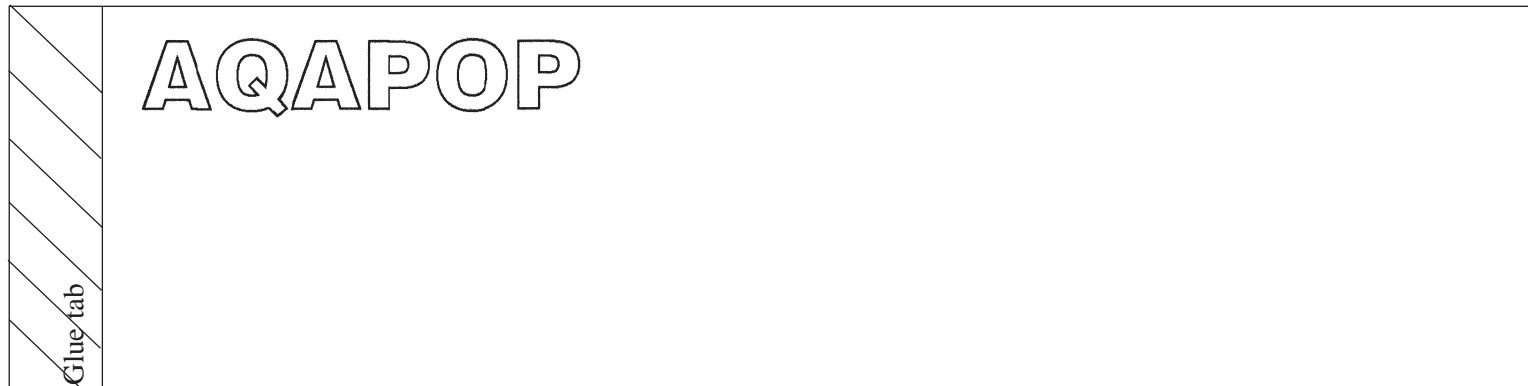
(b) Use the information provided by AQAPOP and your **three** specification points from Question 2 to explain features of your label designs.

This part of the question is worth 3 marks.

Marks will be awarded for:

- (i) Adding **one other** explanation for design 1.
- (ii) & (iii) Adding **two** explanations for design 2.

(a) Label design 1



Label design 2



(b) Features of design 1

- The name AQAPOP is in a plain open font which allows the colour of the drink to be seen through the label.

(i) ● .....  
.....  
.....  
.....  
(1 mark)

Feature of design 2

(ii) ● .....  
.....  
.....  
(1 mark)

(iii) ● .....  
.....  
.....  
(1 mark)

This question is about presentation drawing and British Standards and is worth 23 marks.

Spend about 20 minutes on this question.

- 4 (a) Using the best parts from your three designs in Question 3, produce a full size colour presentation drawing of your label design for the bottle.

This part of the question is worth 18 marks.

Marks will be awarded for:

- (i) use of specification; (6 marks)
  - (ii) quality of drawings; (4 marks)
  - (iii) suitable layout; (4 marks)
  - (iv) quality of colouring. (4 marks)
- (b) (i) Complete the horizontal dimension on the label using British Standard conventions. (4 marks)
- (ii) Complete the scale symbol for a full size drawing (Figure 5). (1 mark)



Scale \_\_\_\_\_:\_\_\_\_\_

Figure 5

This question is about evaluation and is worth 13 marks.

Spend about 15 minutes on this question.

- 5 (a) Evaluate your presentation drawing for your label from Question 4, by explaining how well your final design meets the original specification.

Explain the specification points 2–6 for Question 2.

(i) Point 2 The label appeals to young people because .....  
.....  
.....  
(2 marks)

(ii) Point 3 The label shows a physical activity or sport because .....  
.....  
.....  
(2 marks)

(iii) Point 4 Your specification point was .....  
Explanation The label shows.....  
.....  
(2 marks)

(iv) Point 5 Your specification point was .....  
Explanation The label shows.....  
.....  
(2 marks)

(v) Point 6 Your specification point was .....  
Explanation The label shows.....  
.....  
(2 marks)

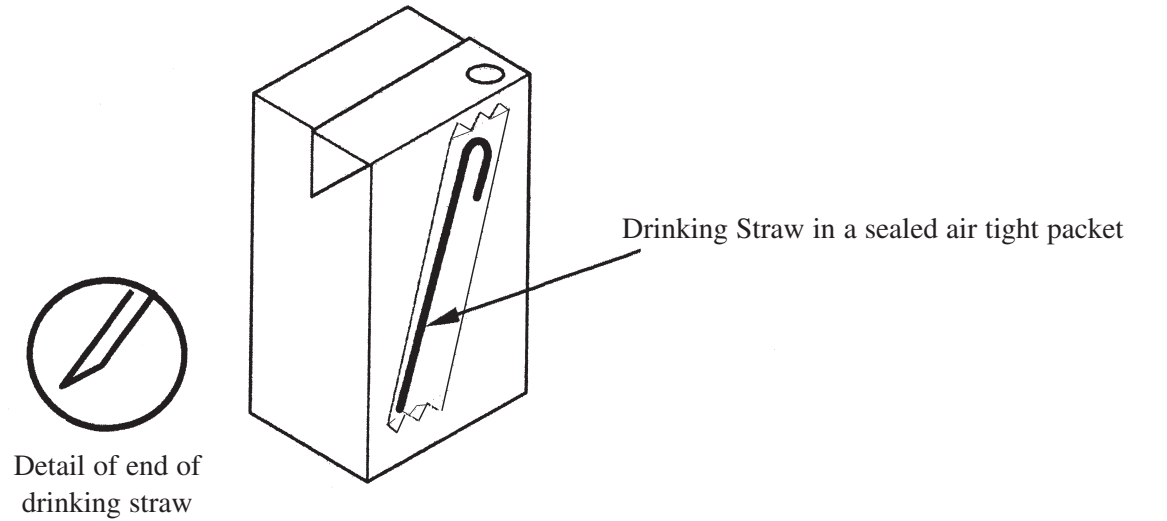


Figure 6

- (b) Figure 6 shows another popular type of drinks container.

Study the detail of the end of the drinking straw.

Explain why it is this shape.

.....  
.....  
.....  
.....  
(3 marks)

This question is about materials and components and is worth 20 marks.

Spend about 20 minutes on this question.

6 Figure 7 is a *point of sale* display stand which is to be made in school from thin board.

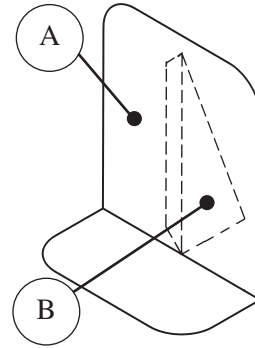


Figure 7

(a) The parts of the stand can be held together with *double-sided* tape or *hot glue*.

(i) Give **one** advantage of *double-sided* tape for use on a *point of sale* display stand.

Advantage .....

.....

.....

(2 marks)

(ii) Give **one** advantage of *hot-glue* for use on a *point of sale* display stand.

Advantage .....

.....

.....

(2 marks)

(b) Give a Health and Safety rule to be followed when using a *hot-glue gun*.

Explain the reason for this rule.



Hot-glue gun

Rule: .....

.....

(1 mark)

Reason: .....

.....

.....

.....

.....

(3 marks)

(c) The equipment and materials which could be used to make a *point of sale* display stand in school are shown in the table below (Table 2).

Complete the table by:

(i) naming the *equipment* and *materials* shown, (3 marks)

(ii) stating where it is used in the making of a display stand. (3 marks)

An example is given


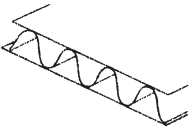

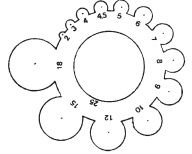
Item	Name	Use when making a <i>point of sale</i> stand
	A Glue Stick	Use to spread glue on paper and thin card before sticking them together
	.....	.....
	.....	.....
	.....	.....

Table 2

(d) On the plastic bottle (Figure 8) below render the indicated areas to represent the following:

(i) a *textured* bottle top to help grip. (3 marks)

(ii) the *cylindrical* middle part of the bottle. (3 marks)

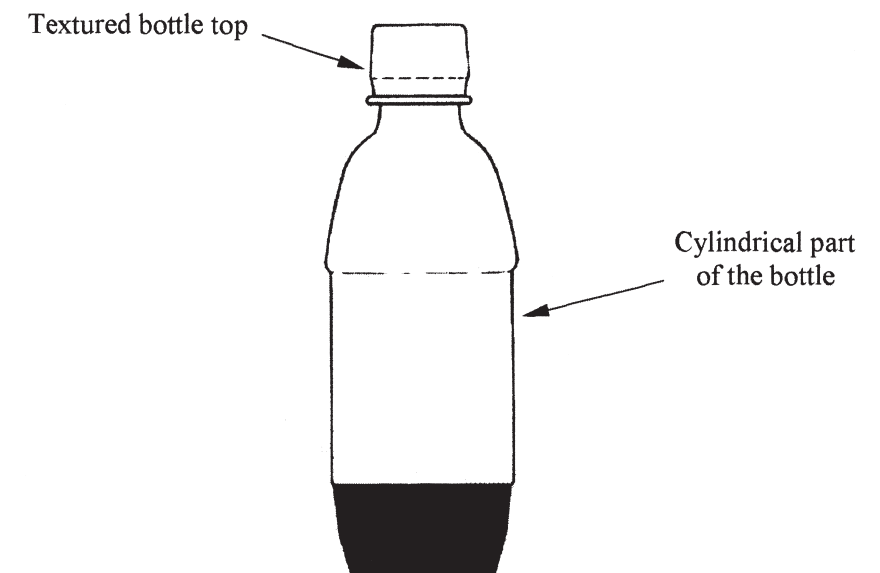


Figure 8

This question is about cultural, social and environmental issues, and is worth 14 marks.

Spend about 12 minutes on this question.

7 (a) A drinks container has the following information printed on it.




Study each piece of information and explain its meaning.

(i) **288ml** .....

.....

.....


(2 marks)

(ii)  .....

.....

.....

(2 marks)

(iii)  .....

.....

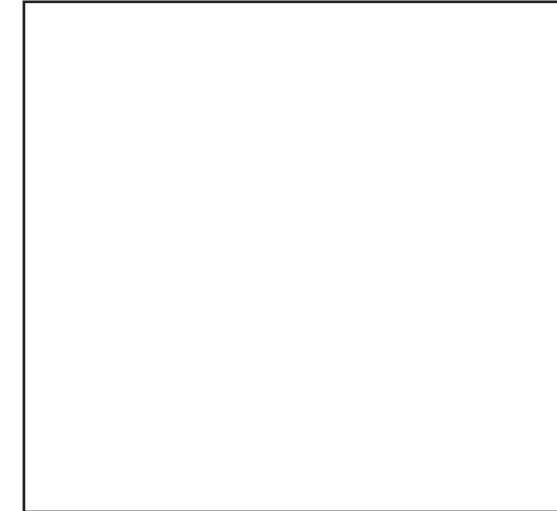
.....

(2 marks)

(b) In the box below draw a symbol in the same style as **Figure 9** to show that a drink can should be crushed before being disposed of.



Figure 9



(5 marks)

(c) Give **one** reason why aluminium drink cans are not considered to be environmentally friendly.

Reason .....

.....

.....

(3 marks)

**END OF QUESTIONS**

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