

Candidate Name	Centre Number	Candidate Number
		0



**GCSE**

138/03

**DESIGN AND TECHNOLOGY**

**PAPER 1**

**Higher Tier**

A.M. MONDAY, 2 June 2008

30 minutes

	<b>Leave Blank</b>
<b>Question 1</b>	
<b>Question 2</b>	
<b>Question 3</b>	
<b>TOTAL MARK</b>	

**INSTRUCTIONS TO CANDIDATES**

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided in this booklet. Where the space is not sufficient for your answer, continue the answer at the back of the book, taking care to number the continuation correctly.

**INFORMATION FOR CANDIDATES**

The number of marks is given in brackets at the end of each question or part-question.

Answer **all** questions in the spaces provided.

1. (a) (i) Complete the table below by placing these design process stages in the correct order. [5]

**Final evaluation      Development      Analysis      Design brief      Initial ideas**

<b>Design process stages</b>

- (ii) State the name of the design process stage in which designers would improve their ideas. [1]

.....

- (b) Explain why a designer might evaluate existing products before designing. [2]

.....  
 .....

- (c) (i) Designers often make several prototypes or models before making the final product. Give **two** reasons why this is done.  $2 \times [2]$

Reason 1: .....

.....

Reason 2: .....

.....

- (ii) Describe **one** example of how CAD can be used to help in product modelling, testing or prototyping. [2]

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

2. (a) Product packaging is usually labelled with information. An example of packaging is shown below.



- (i) Symbol **A** shows a barcode. Give **two** reasons why a barcode is used on packaging. 2 × [1]

Reason 1: .....

Reason 2: .....

- (ii) State what symbol **B** means. [2]

.....  
 .....

- (iii) Other than to provide product information, state **two** functions of packaging. 2 × [1]

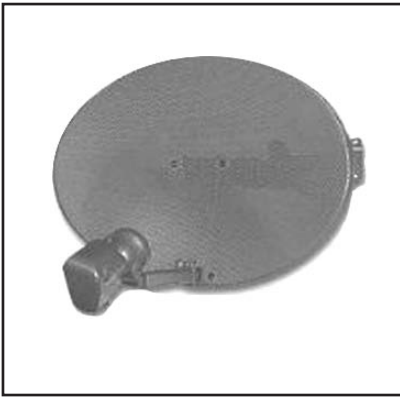
Function 1: .....

Function 2: .....

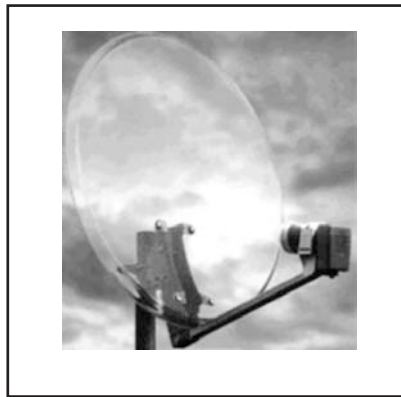
- (b) Discuss the disadvantages of packaging products. [3]

.....  
 .....

3. (a) Satellite dishes are now available in a variety of colours as well as transparent.



*Standard black*



*Transparent*



*Coloured*

Describe **one** positive effect using *transparent* satellite dishes may have on the environment. [2]

.....

.....

(b) The design of television sets has changed over time. Study the three television sets below.



**Television A**

- Standard screen TV.

**Television B**

- Widescreen TV.

**Television C**

- LCD TV screen.

State **one aesthetic** and **one functional** change that has been made to the televisions, and then explain how each change has benefited or helped the consumer.

(i) Television: .....

State one *aesthetic* change: ..... [1]

Explain how this *aesthetic* change has benefited or helped the consumer: .....

..... [2]

(ii) Television: .....

State one *functional* change: ..... [1]

Explain how this *functional* change has benefited or helped the consumer: .....

..... [2]

(c) The cost of LCD screen televisions has fallen significantly since their introduction. Explain **two** reasons for this.

2 × [2]

Reason 1: .....

Reason 2: .....

