

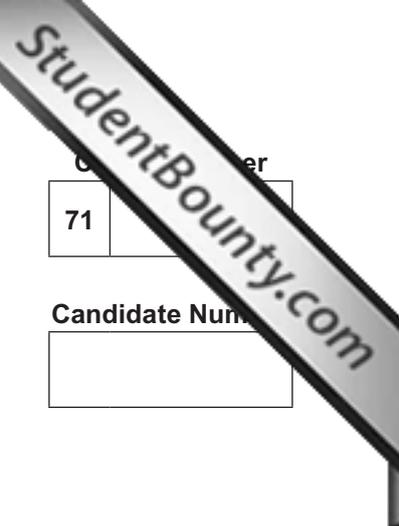


General Certificate of Secondary Education  
2013

**Engineering**  
Paper 2  
Assessment Unit 3  
*assessing*  
Engineering Technology  
**[GEE32]**



**WEDNESDAY 22 MAY, AFTERNOON**



Centre Number  
71

Candidate Number

**TIME**

1 hour.

**INSTRUCTIONS TO CANDIDATES**

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.  
Write your answers in the spaces provided in this question paper.  
Answer **all** parts of the one question in this paper.  
The paper should be answered in relation to the Pre-Release Material.  
You will be provided with a new copy of the Pre-Release Material.  
You should **not** bring any of the material previously issued, or any notes made into this examination.

**INFORMATION FOR CANDIDATES**

The total mark for this paper is 40.  
Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each part question.  
Quality of written communication is assessed in **(h)** and **(i)**.



8159

For Examiner's use only	
Question Number 1	Marks
(a)	
(b)	
(c)	
(d)	
(e)	
(f)	
(g)	
(h)	
(i)	
<b>Total Marks</b>	

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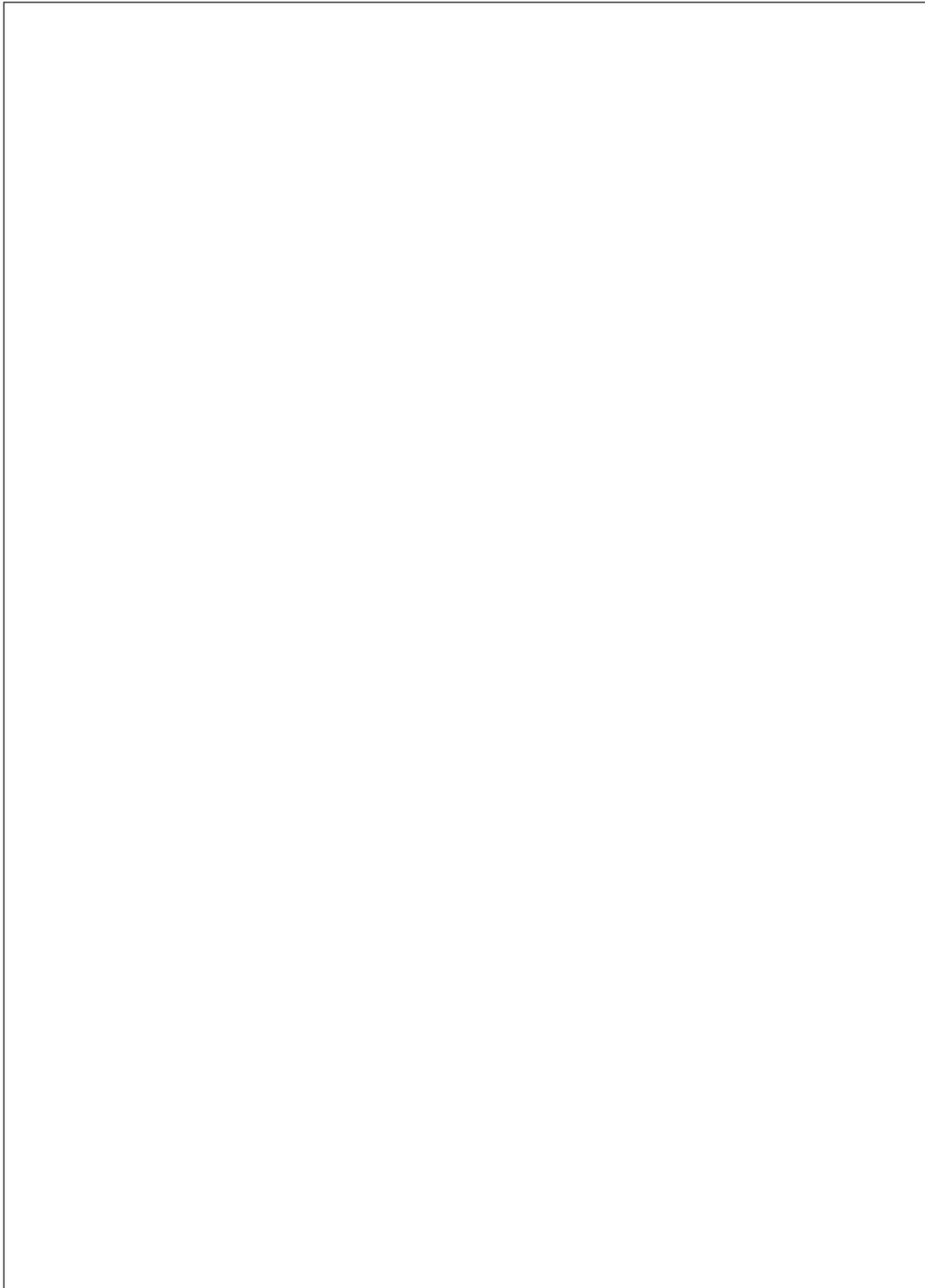


(h) The main plastic handle of a Shopping Trolley is manufactured by a process known as extrusion.

In the box below using annotated sketches and correct terminology describe the extrusion process.

Marks will be awarded for

- Detail contained in sketches [4]
- Quality of sketches [3]
- Detailed notes [3]



[10]

Examiner Only	
Marks	Remark

(i) In the box below demonstrate:

- how the baby seat can become collapsible, and
- how the plastic wheels are attached to the punched out castors.

Marks will be awarded for

- Suitability of chosen method [4]
- Quality of sketches [3]
- Detailed notes [3]

[10]

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**THIS IS THE END OF THE QUESTION PAPER**

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Examiner Only	
Marks	Remark

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**General Certificate of Secondary Education  
2013**

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**Engineering**

**Pre-Release Material**

**Paper 2**

**Assessment Unit 3**

*assessing*

**Engineering Technology**

**[GEE32]**

**JANUARY 2013 AND SUMMER 2013**

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You must use **this** clean copy of the Pre-Release Material in the examination and **not** your own annotated copy.



8159.03

## Engineering Technology Pre-Release Material

The image below shows a “Shopping Trolley”.



© Hemera / Thinkstock

### Description

A shopping trolley is a trolley supplied by a shop, especially supermarkets, for use by customers inside the shop for transporting merchandise to the check-out counter during shopping. Customers can then use the trolley to transport their purchased goods to their cars. Most modern shopping trolleys are made of metal or a combination of metal and plastic, and have been designed to nest within each other in line to facilitate collecting many at one time and also to save on storage. The carts come in many sizes, with larger ones able to carry a child.

### Features include:

- Swivel castors
- Available in different sizes
- Extruded steel bottom structure
- Frame material – steel

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