



Rewarding Learning

General Certificate of Secondary Education  
January 2015

# Engineering

## Paper 2

### Assessment Unit 3

*assessing*

### Engineering Technology

**[GEE32]**

**TUESDAY 13 JANUARY, AFTERNOON**

Centre Number

71	
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Candidate Number

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GEE32

#### 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 **(i)** and **(j)**.

For Examiner's use only	
Question Number	Marks
(a)	
(b)	
(c)	
(d)	
(e)	
(f)	
(g)	
(h)	
(i)	
(j)	

Total Marks	
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Answer **all** parts of the question.

Examiner Only

Marks Remark

1 (a) The frame of the highchair shown in the Pre-Release Material is made from tubular aluminium.

(i) Give **one** reason why tubular aluminium is a more suitable material to make the frame of the highchair than steel.

\_\_\_\_\_  
\_\_\_\_\_ [1]

(ii) Name the process used to manufacture tubular aluminium.

\_\_\_\_\_  
\_\_\_\_\_ [1]

(b) The tray which is attached to the highchair is made from a polymer.

(i) Outline **one** advantage of manufacturing the tray from a polymer rather than wood.

\_\_\_\_\_  
\_\_\_\_\_ [1]

(ii) Name an appropriate polymer which could be used to manufacture the tray.

\_\_\_\_\_  
\_\_\_\_\_ [1]

(c) Outline **two** examples of how modern technology has reduced lead times in the manufacture of highchairs.

1. \_\_\_\_\_  
\_\_\_\_\_ [1]

2. \_\_\_\_\_  
\_\_\_\_\_ [1]

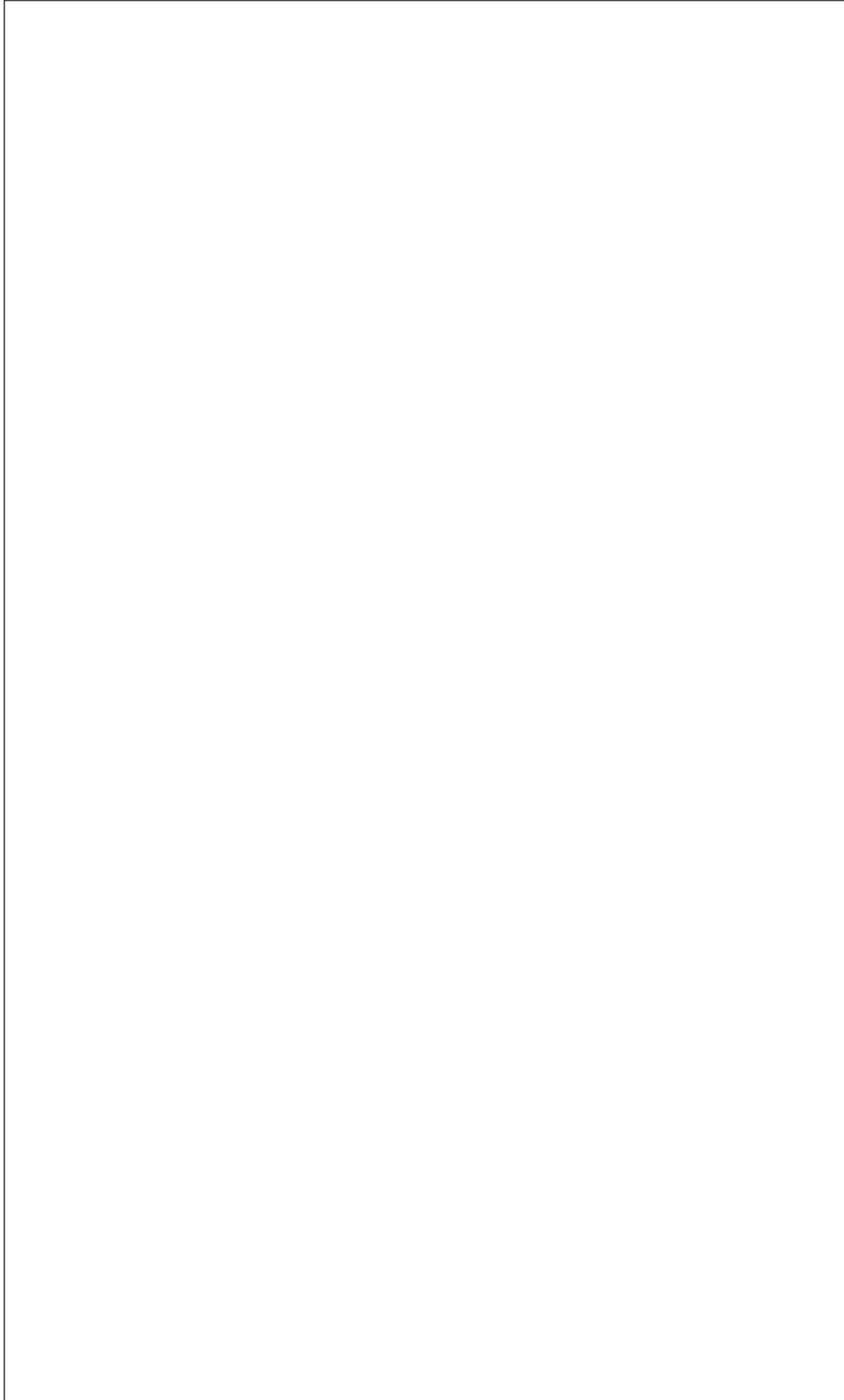




(i) Using notes and annotated sketches in the box below, show how the tray is attached to the frame of the highchair and how it can be adjusted to different positions.

Marks will be awarded for

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



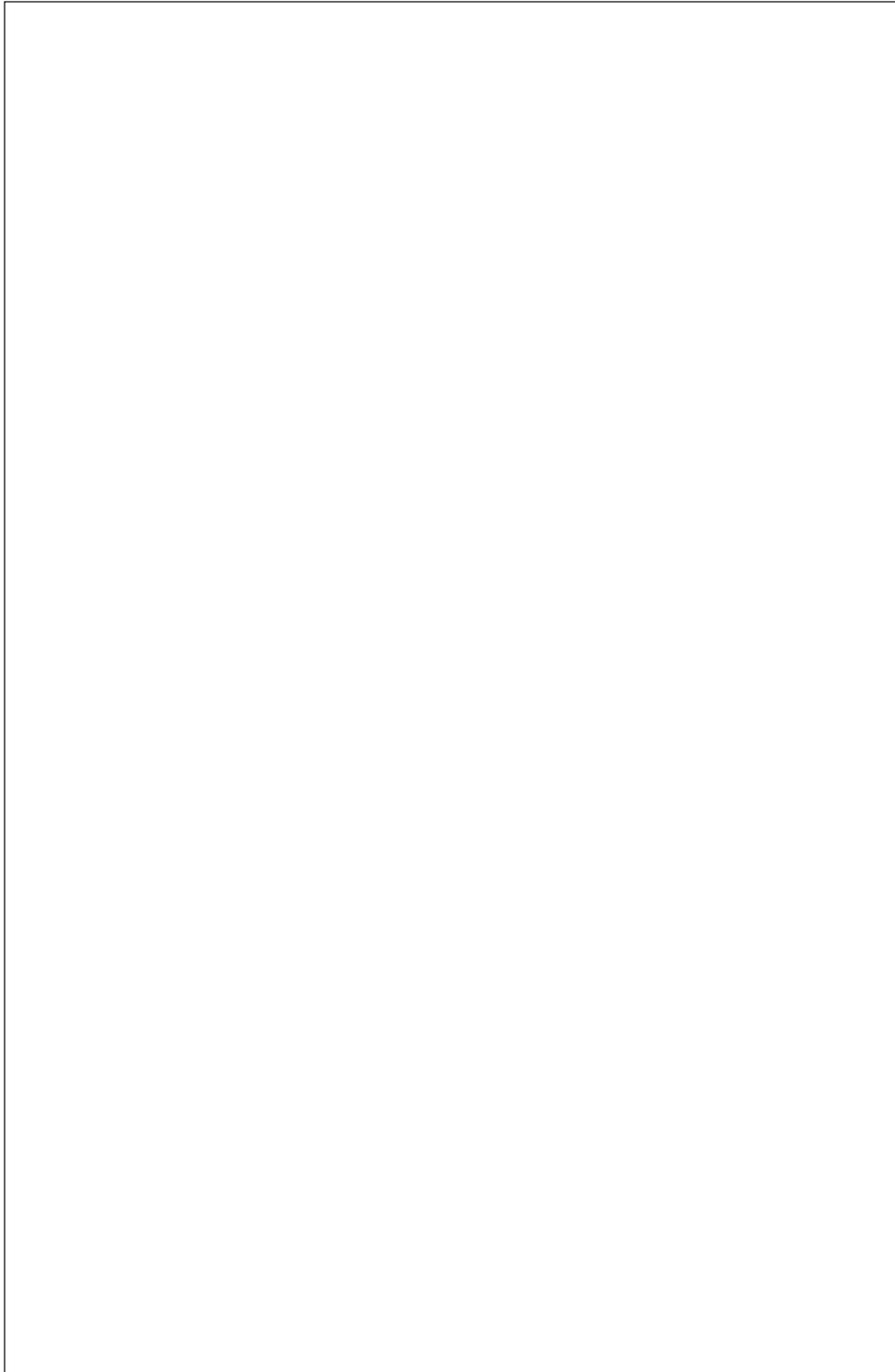
[10]

Examiner Only	
Marks	Remark

(j) Using notes and annotated sketches in the box below, show how the back of the highchair can be adjusted to different positions.

Marks will be awarded for

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



[10]

Examiner Only	
Marks	Remark

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

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*Rewarding Learning*

**General Certificate of Secondary Education  
2015**

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**Engineering**

**Pre-Release Material  
EXAMINATION COPY**

**Paper 2**

**Assessment Unit 3**

*assessing*

**Engineering Technology**

**[GEE32]**



GEE32

**JANUARY 2015 AND SUMMER 2015**

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

Answer **all** parts of the question.

There is **one** question in this paper which relates to the pre-release materials.

You should draw on the knowledge gained from the pre-release task and also Unit 3: Engineering Technology.

The image below shows a baby's highchair.



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## Description

Finding a comfortable chair for your child can be quite a task. The highchair shown above is a light weight and comfortable highchair for your baby to sit in. This highchair is one of its kind, due to its modern designs which are colourful and attractive, giving it a stylish look. Easy to co-ordinate with your kitchen, this highchair is very light (only 5.9 kg), thus occupying minimal space, and can be moved around with ease. It is compact, practical and foldable making it ideal for storage. The chair has a basket underneath which is useful and practical allowing you to store additional items.

## Features include:

- 3 position reclining seat
- 5-point restraint harness
- Deep, padded comfortable seat with a rigid crotch strap, to prevent baby sliding down
- Footrest
- Easy to use and open/close, operated from buttons on the side
- Removable and wipe clean P.V.C. seat cover
- Highchair tray has 4 positions and is removable for storage
- Tray lock button on either side to prevent accidental removal
- Large net basket for storing essential items, toys etc
- Free standing when folded and compact when closed
- Can be broken down further by splitting legs, making it very compact

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