



Rewarding Learning

General Certificate of Secondary Education
2015

Centre Number

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Candidate Number

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Engineering

Paper 2
Assessment Unit 3
assessing
Engineering Technology



GEE32

[GEE32]

MONDAY 1 JUNE, AFTERNOON

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 (j) and (k).

For Examiner's use only

Question Number	Marks
(a)	
(b)	
(c)	
(d)	
(e)	
(f)	
(g)	
(h)	
(i)	
(j)	
(k)	

Total Marks

--

Answer **all** parts of the question.

Examiner Only	
Marks	Remark

- 1 (a) (i) Outline **two** properties of aluminium that make it suitable for the construction of highchairs.

1. _____
_____ [1]

2. _____
_____ [1]

- (ii) Give **one** disadvantage of using aluminium for the main frame of the highchair rather than a wooden frame construction.

_____ [1]

- (b) A highchair such as the one shown in the Pre-Release Material is sold with a BSI label attached.

Give **two** advantages for the consumer when buying a highchair with the BSI label attached.

1. _____
_____ [1]

2. _____
_____ [1]

- (c) Modern technology is used extensively throughout the manufacture of highchairs.

Give **two** examples of how modern technology has increased the overall quality of the manufacture of a highchair.

1. _____
_____ [1]

2. _____
_____ [1]

(d) Manufacturers use different types of machinery and production processes when producing highchairs. State **two** production processes used in the manufacture of highchairs such as the one shown in the Pre-Release Material.

1. _____
_____ [1]

2. _____
_____ [1]

(e) State an appropriate finish which could be applied to the main frame of the highchair before dispatch to the retailers.

_____ [1]

Examiner Only	
Marks	Remark

- (f) The photograph below shows how the seat of the highchair is attached to the frame using a pop rivet.



Source: Chief Examiner

Give **two** reasons why a manufacturer would use this type of joining technique rather than an alternative one like a nut and bolt.

1. _____
_____ [1]

2. _____
_____ [1]

- (g) A strap made of nylon is used to strap a baby into position when sitting in a highchair. State **two** properties of nylon which make it suitable for this purpose.

1. _____
_____ [1]

2. _____
_____ [1]

Examiner Only

Marks

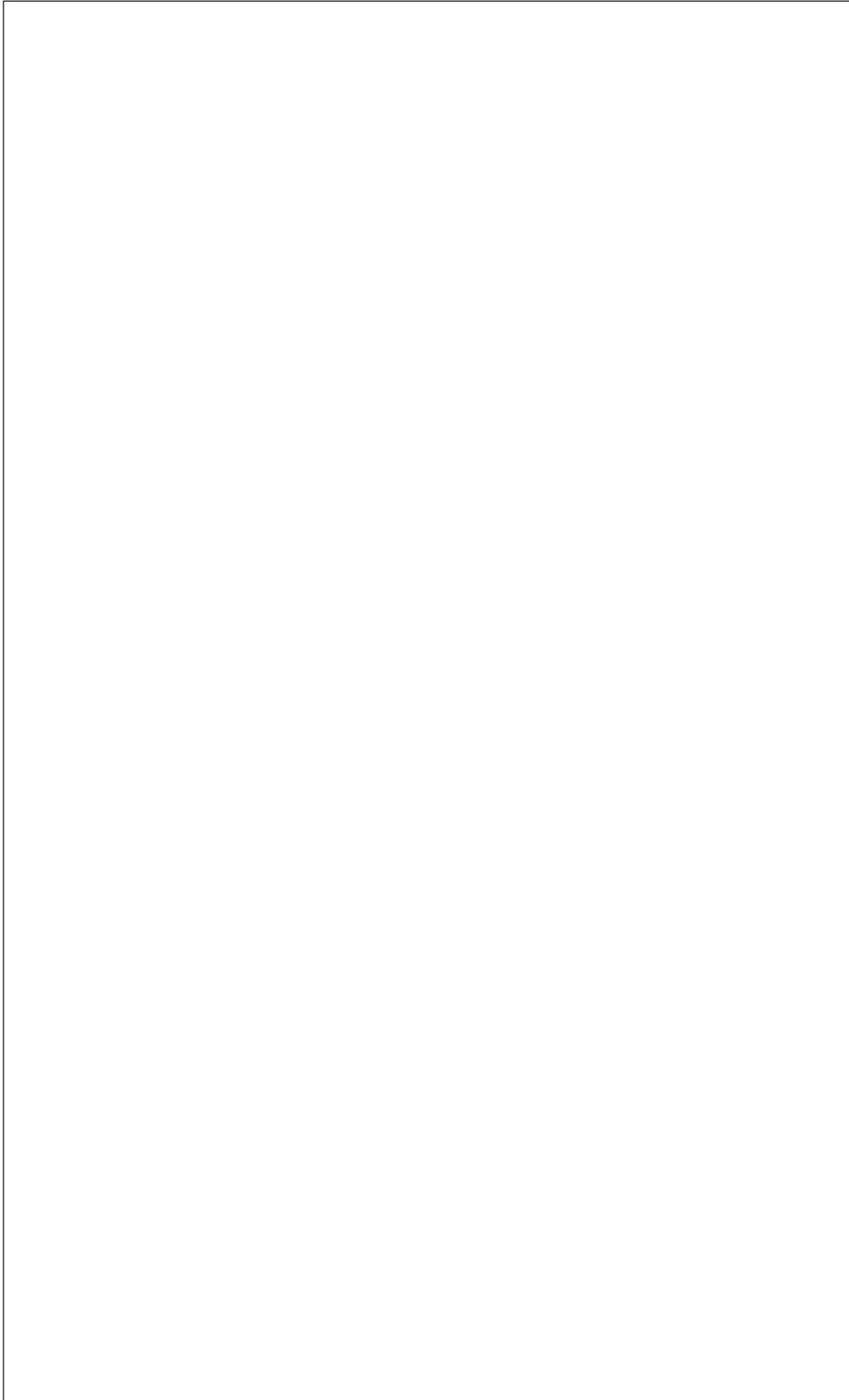
Remark

Examiner Only	
Marks	Remark

(j) Using notes and annotated sketches in the box below, show how the highchair can be folded, making it easier to store.

Marks will be awarded for

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



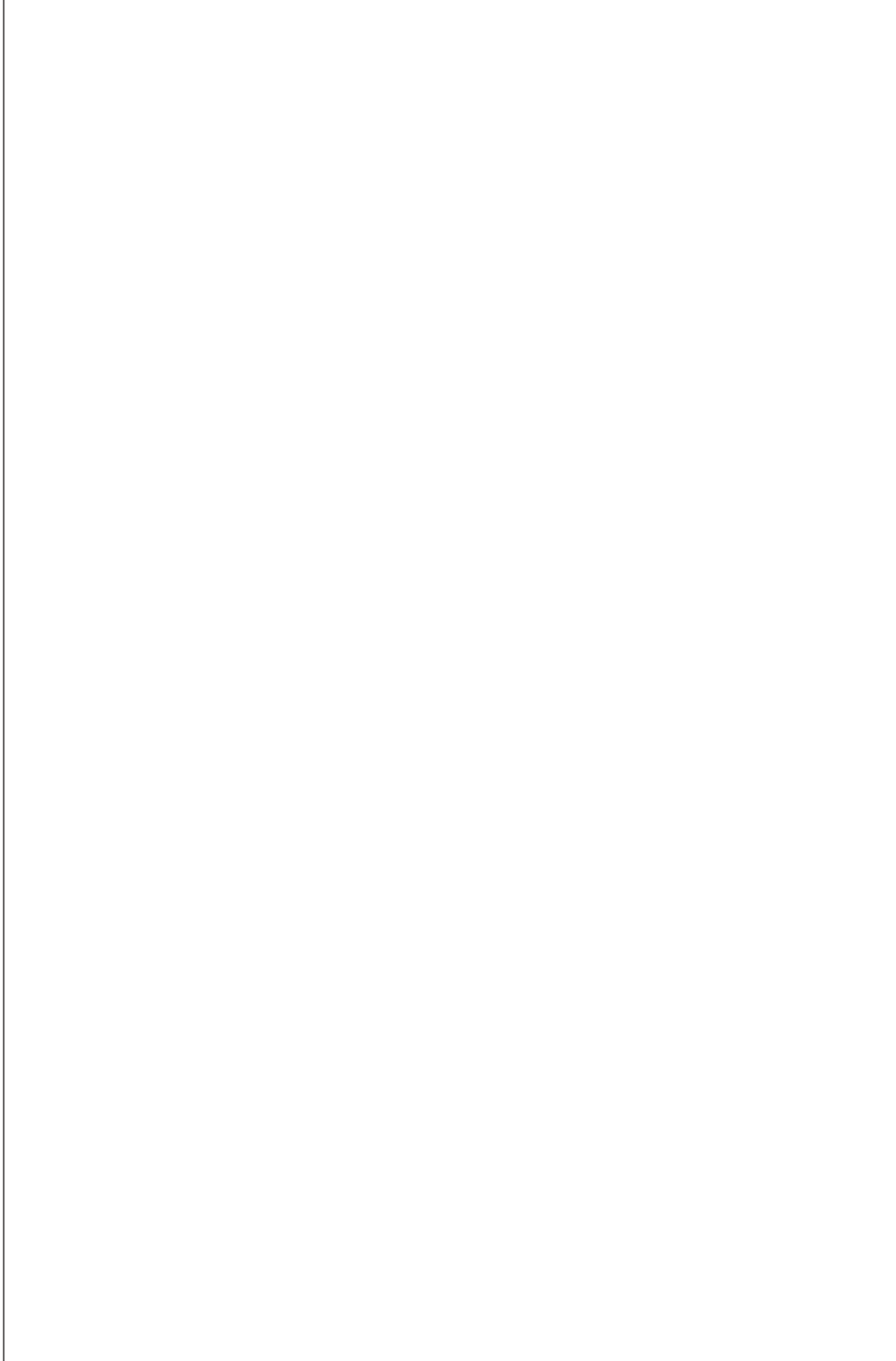
[10]

Examiner Only	
Marks	Remark

(k) Pop rivets are used in the manufacture of highchairs. Using notes and annotated sketches in the box below, draw the process of pop riveting.

Marks will be awarded for

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



[10]

THIS IS THE END OF THE QUESTION PAPER

Examiner Only	
Marks	Remark

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Rewarding Learning

**General Certificate of Secondary Education
2015**

Engineering

**Pre-Release Material
EXAMINATION COPY**

Paper 2

Assessment Unit 3

assessing

Engineering Technology

[GEE32]



GEE32

JANUARY 2015 AND SUMMER 2015

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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