Rewarding Learning

Centre Number	
71	

Candidate Number

General Certificate of Secondary Education
January 2014

Engineering

Paper 2

Assessment Unit 3

assessing

Engineering Technology

[GEE32]

GEE32

WEDNESDAY 15 JANUARY, 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 question or part question.
Quality of written communication is assessed in **(h)** and **(i)**.

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

Answer **all** parts of the question.

Examiner Only	
Marks	Remark

1 **(a)** The Taylor Continental 1100 bin is assembled using four separate side panels and a base.
Outline **one** reason why the bin is not manufactured in one piece.

_____

_____ [2]

(b) The assembly process involved in the production of the bin includes the use of modern technology such as robotic welders to tack weld the different pieces of the bin together.
Explain **two** advantages of using modern technology such as this in the fabrication of a Taylor Continental 1100 bin.

1. _____

_____ [2]

2. _____

_____ [2]

(c) List **two** parts of the Taylor Continental 1100 bin that have been folded before being assembled into position.

1. _____ [1]

2. _____ [1]

(d) The main structure of the Taylor Continental 1100 bin is manufactured from steel.
Outline **one** reason why this is an appropriate material.

_____

_____ [2]

(e) **(i)** Name the plastic used to manufacture the lid of the Taylor Continental 1100 bin.

_____ [1]

(ii) Identify **one** reason why this is an appropriate material to make the lid of the Taylor Continental 1100 bin.

_____

_____ [2]

(f) Taylor Continental 1100 bins are galvanised to stop corrosion. Explain the term corrosion.

_____

_____ [2]

(g) Control systems are used in the manufacture of mass produced Taylor Continental 1100 bins.

(i) State **one** stage in the manufacture of Taylor Continental 1100 bins, where quality should be checked.

_____ [1]

(ii) Describe how the quality would be checked at this stage.

_____

_____ [2]

(iii) Outline **one** benefit of quality control techniques during the manufacturing process of a Taylor Continental 1100 bin for the user.

_____

_____ [2]

Examiner Only	
Marks	Remark

(h) In the box below using annotated sketches and the correct terminology show how the four sides of the Taylor Continental 1100 bin are attached and held together.

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 using annotated sketches and the correct terminology show how a hydraulic press is used to manufacture the sides of the Taylor Continental 1100 bin.

Marks will be awarded for

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

[10]

Examiner Only	
Marks	Remark

THIS IS THE END OF THE QUESTION PAPER

Rewarding Learning

General Certificate of Secondary Education
2014

Engineering

Pre-Release Material

EXAMINATION COPY

Paper 2
Assessment Unit 3
assessing
Engineering Technology

[GEE32]

JANUARY 2014 AND SUMMER 2014

GEE32

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

The image below shows a Taylor Continental 1100 bin.

Description

Built to EN840 standards the award-winning Continental range is established as the industry standard for waste and recycling containers. This workhorse of the waste industry offers unrivalled size and capacity options, from 500 litres to 1280 litres. The body of the bin ensures robust protection in the harshest of environments, and protects the container from internal corrosion due to residual waste being caught in exposed corners.

Features include:

- Swivel castors.
- Available in different sizes.
- Welded seams.
- Sump base for improved rigidity and stability with drain plug as standard.
- Comb lifting bar.