Candidate 2

The evidence for this candidate has achieved the following marks for each question of this course assessment component.

Question 1ai

The candidate was awarded **2 marks** because they correctly acknowledged topographical surveys within Graphic 1 and Graphic 2 taking consideration of existing buildings.

Question 1aii

The candidate was awarded **0 marks** because the candidate suggests that Graphic 3 is more readily understood by a non-technical audience however this is inaccurate.

Question 1b

The candidate was awarded **1 mark** because their response related to positive public imagery through the animation.

Question 1c

The candidate was awarded **2 marks** because they correctly identified existing trees and land contours.

Question 1di

The candidate was awarded **2 marks** because they recognised that Graphic 4 would aid construction trades in obtaining dimensions and materials and Graphics 1 and 2 will assist in construction via the cross section of the building.

Question 1dii

The candidate was awarded **1 mark** because they referred to only one graphic, correctly identifying the building as the finished product to non-technical audiences.

Question 1e

The candidate was awarded **2 marks.**

- Access to a '*wider audience'* **(1 mark)**
- ' *'websites are also easily updated in case of any changes to the design'* which refers to instant editing in the MI **(1 mark)**

Question 1f

The candidate was awarded **1 mark** because they correctly identified that motion tweening only requires the start and end frame and then completes the rest of the animation. However, the candidate's comparison of other methods was not accepted as an advantage.

Question 1g

The candidate was awarded **1 mark** because they have acknowledged that the application of natural light (sun) will help to light through the windows which relates to external light coming into building in the MI.

Question 1hi

The candidate was awarded **2 marks** because both texture mapping and bump mapping were correctly recognised within the image.

Question 1hii

The candidate was awarded **1 mark** because they correctly described the technique for IBL howeverthe HDRI response lacked clarity

Question 2a

The candidate was awarded **2 marks** because they correctly identified that the file conversion to STL will make it compatible with a 3D printer.

Question 2bi

The candidate was awarded **1 mark** for visualisation of the model.

Question 2bii

The candidate was awarded **1 mark** as they correctly recognised the relevance of assembly and manufacture.

Question 2c

The candidate was awarded **2 marks.**

- Finite Element Analysis **(1 mark)**
- Computational Fluid Dynamics **(1 mark)**

Question 2d

The candidate was awarded **1 mark** because their response describes the images ability to support informed choices.

Question 2e

The candidate was awarded **3 marks** because they acknowledged the *'materials used', 'Aesthetics'* and *'lighting styles'.*

Question 2f

The candidate was awarded **2 marks** because their response includes viewing the caravan from a variety of angles and creating a more virtual experience.

Question 2g

The candidate was awarded **1 mark** for *'interactive'* and *'more engaging'.*

Question 3a

The candidate was awarded **2 marks.**

- '*no loss of quality'* when scaling **(1 mark)**
- *'smaller'* file sizes **(1 mark)**

Question 3b

The candidate was awarded **1 mark** because they acknowledge colour matching using pantone palette. However, colour picker is not an appropriate way of ensuring exact colour match and therefore no further marks can be awarded.

Question 3c

The candidate was awarded **2 marks** because they recognised paper opacity. and '*calendar the paper so that it is smoother*'.

Question 3d

The candidate was awarded **0 marks** because their response was incorrect.

Question 4a

The candidate was awarded **2 marks** because they *'recognised as the brand'* and continuity of elements: *'features used across all coca cola products'*.

Question 4b

The candidate was awarded **2 marks.**

'*substandard products'* **(1 mark)**
'*steal their branding in an attempt to fool customers'* **(1 mark)**

Question 4c

The candidate was awarded **5 marks** because the following statements related to the mark scheme.

Target Market
'children …fun and games' **(1 mark)**
'aimed at those who care for the environment' **(1 mark)**

Colour
'green… associated with nature and life and so re-enforces green theme' **(1 mark)**
black '*adds drama and intrigue'* **(1 mark)**

Social responsibilities
'*coke is taking on the responsibility of being green and environmentally friendly'* **(1 mark)**

Question 5a

The candidate was awarded **7 marks** because they provided a simple yet comprehensive response which through appropriate structured steps, clearly details each of the relevant modelling stages using the correct terminology.

- correct dimensioning **(1 mark)**
- revolve **(1 mark)**
- M10 thread **(1 mark)**
- 2mm work plane **(1 mark)**
- Sweep **(1 mark)**
- fillet **(1 mark)**
- dia.20 hole **(1 mark)**

Question 5b

The candidate was awarded **3 marks** because they created and described an appropriately dimensioned sketch, identifying the process of revolve to create the part including a detailed description and diagram of the sweep. The candidate also correctly identified the creation of the hole and thread.

Question 5c

The candidate was awarded **5 marks** because they correctly sketched and annotated the following:

- correct wheel dimensions **(1 mark)**
- fillets on the inside axle **(1 mark)**
- axle hole dimensioned correctly **(1 mark)**
- correct use of Revolve command **(1 mark)**
- Radial array **(1 mark)**

Question 5d

The candidate was awarded **1 mark** because they correctly identified the constraint to the centre axis.