Candidate 5

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

Question 1ai

The candidate was awarded **1 mark** for identifying topographical features which influence the location of the housing development.

Question 1aii

The candidate was awarded **1 mark** for *'house boundaries'*. The response from Question 1ai has largely been repeated and so no additional mark can be awarded.

Question 1b

The candidate was awarded **1 mark** for *'visual representation'*.

Question 1c

The candidate was awarded **2 marks.**

1 mark for *'contour' of the land* and **1 mark** for *'land features'*.

Question 1di

The candidate was awarded **2 marks.**

1 mark for describing the relevance of construction details in Graphic 2 which relates to the construction of roof in the Marking Instructions and **1 mark** for describing the relevance of sizes and materials in Graphic 4.

Question 1dii

The candidate was awarded **1 mark** for *'shows one of the floor levels'* in reference to Graphic 1. **0 marks** awarded for *'everything fits and works'* in reference to Graphic 3, as this answer is not specific enough and this information cannot be confirmed by a rendered image alone.

Question 1e

The candidate was awarded **2 marks.**

1 mark for *'easy to keep up-to-date'* which relates to instant editing in the additional guidance section of the Marking Instructions and **1 mark** for *'widely accessible to people everywhere'.'* which relates to accessed by wider audience in the MI.

Question 1f
The candidate was awarded **0 marks** because the description provided was not sufficiently clear and lacks the depth required in an Advanced Higher response.

Question 1(g)
The candidate was awarded **1 mark** for *'using ambient lighting'*. Ambient lighting has the same effect as increasing external or internal lighting .

Question 1hi
The candidate was awarded **2 marks.**

1 mark for *'ambient lighting'* as different lighting types were mentioned in the Marking Instructions and **1 mark** for '*Bump mapping… to give the house a look of texture'*

NB: Even though *'ambient lighting'* it is a repeat of a previous answer, it is in response to a different question and therefore acceptable.

Question 1hii
The candidate was awarded **2 marks.**

♦ Image Based Lighting **(1 mark)**
♦ '*house is put in false surroundings'* **(1 mark)**

NB: '*false surroundings'* was interpreted as being a virtual environment and therefore the mark was awarded.

Question 2a
The candidate was awarded **0 marks** as the response was too vague. The candidate should have mentioned specific file types and highlighted what the compatibility issues could have been.

Question 2bi
The candidate was awarded **1 mark** for understanding that a physical model gives the most complete indication of the correct scale.

0 mark for '*placement of items'* as this is not specific enough.

NB: If the candidate had stated 'to see if the 3D kitchen cupboards specified by the designer (produced at the same scale) take up the right amount of space' then this would be valid answer in relation to fixtures and fittings.

Question 2bii
The candidate was awarded **1 mark** for testing the assembly methods.

NB: An improved response might have stated that physical models are the only certain way of testing if an assembly method works in practice.

0 marks for 'how the final outcome should be' as this is too vague, particularly for AH level.

Question 2c
The candidate was awarded **1 mark**

♦ Finite Element Analysis **(1 mark)**
♦ *'Computer fluid dynamics'* is not the correct term **(0 marks)**

NB: Candidates must use terms in the Course Assessment Specification, in this case Computational Fluid Dynamics.

Question 2d
The candidate was awarded **1 mark** for explaining how the caravan '*would handle certain stresses'* and **0 marks** for *'problem areas'* as this is too vague an answer.

Question 2e
The candidate was awarded **1 mark** for *'realistic final view of the caravan'* and **0 marks** for the other responses because they were not advantages specific to a rendered image.

NB: At this level candidates would be expected to describe the relevance of particular features of a rendered view, which could then be used to inform a specific audience. For example, by changing materials or altering the texture mapping customers could choose from a range of cupboard door finishes.

Question 2f
The candidate was awarded **0 marks** because a VRML file does add more realism to the viewing experience. However, this realistic appearance can be achieved in other file formats eg 3DS.

Question 2g
The candidate was awarded **1 mark** for *'seeing something realistic'* which is a valid response. The question is about getting the consumers attention and presenting a certain quality standard to potential buyers so a highly realistic rendered image could achieve this.

Question 3a
The candidate was awarded **2 marks.**

1 mark for *'Raster images consume more… data'* and although this has been clumsily expressed, it links to the l*arger file size of raster v. vector* images in the Marking Instructions. **1 mark** for *'vector images are a lot easier to edit'.*

Question 3b
The candidate was awarded **1 mark** for reference to '*RGB or CMYK colour system*'.

NB: No additional mark can be awarded as there is no explanation of how RGB and CYMK are used in printed and online graphics.

Question 3c
The candidate was awarded **2 marks.**

1 mark for understanding that '*calendared paper'* could improve the quality and **1 mark** for suggesting a change in the type of substrate material — to something more appropriate for the printing method — could also improve the printed output.

Question 3d
The candidate was awarded **3 marks.**

♦ understanding of CMYK **(1 mark)**
♦ consideration of crop-marks **(1 mark)**
♦ reference to register marks **(1 mark)**

Question 4a
The candidate was awarded **1 mark** for the *'identity (of the coke logo/brand) is recognisable'.*

NB: The candidate's reference to copyright is not a relevant to this question.

Question 4b
The candidate was awarded **3 marks.**

♦ '*they are not associated with anything negative'* which relates to protecting the reputation of the company **(1 mark)**
♦ preventing copying which, with respect to intellectual property rights is to prevent copying of graphics associated with the brand **(1 mark)**
♦ '*identity is… controlled'* which refers to control over who or what coke sponsors or promotes. **(1 mark)**

Question 4(c)
The candidate was awarded **5 marks**

Target Market
♦ explanation of how the target market is reached through Graphic 1 **(1 mark)**
♦ explanation of Graphic 3 is too similar to the first response **(0 marks)**

Colour
♦ response to Graphic 3 highlights nature/green and the companies desire to be associated with natural things**(1 mark)**
♦ response to Graphic 1 explains that 'coca cola' use of red across the poster reinforces the brand **(1 mark)**

Social responsibilities
♦ response to Graphic 2 encourages a life without 'sugar' and promotes a 'healthy lifestyle' **(1 mark)**
♦ response to Graphic 3 highlights the healthy images and encourages the connection between coke and a healthy lifestyle **(1 mark)**

Question 5(a)
The candidate was awarded **1 mark** for the 20mm fillet.

♦ **0 marks** for dimensioning as Ø10 has been written M10
♦ **0 marks** for 3D command. Revolve has not been used. Using extrude most of the cylindrical element has been modelled but the term 'cut' is used to remove material and not 'subtract' which is in the Course Assessment Specification.
♦ **0 marks** for M10 thread as this must be added after the Ø10 subtracted hole has been created.
♦ **0 marks** for the position of the work-plane
♦ **0 marks** for modelling technique as some dimensions are missing and chamfer would not achieve the result shown
♦ **0 marks** for the Ø20 hole.

Question 5b
The candidate was awarded **1 mark** for creating the cylindrical part using a series of extrudes and a loft as all dimensions are correct.

Question 5c
The candidate was awarded **2 marks.**

0 mark was awarded for wheel size as the 3.2mm dimension is missing
0 mark for the fillet as this was incorrectly labelled as a chamfer
1 mark was awarded for the correct use of the revolve command
1 mark awarded for the creation of the Ø20 hole for the axle

NB: The follow on rule can be applied here. The candidate should not be penalised for making the same mistake twice so extrude cut was not penalised a second time
0 marks were awarded for the tread dimensions as the 5mm gap has been omitted

0 marks for the position and size of the Ø 8 circle as this are not included in the response.

0 marks for the radial array which is not included in the response.

Question 5(d)
The candidate was awarded **0 marks**

0 marks for the constraint *'flushed'* as it is not listed in the CAS.