

Candidate 6

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** because although the reference to the graphics is somewhat vague the mark can be awarded for *'the contour of the land'* as they appear in each graphic.

NB: As *'reference to the graphic or graphics'* is in the stem of the question a relevant graphic or graphics must be referred to by the candidate in the answer.

Question 1 aii

The candidate was awarded **2 marks**.

1 mark for *'how steep or contoured the land is'* which relates to the lay of the land and **1 mark** for *'near a road'* which relates to road access.

The candidate has not referred to specific graphics, however, the follow on rule applies as graphics were referred to part (i).

Question 1 b

The candidate was awarded **2 marks**.

1 mark was for recognising the importance of the scale of the 3D print in helping clients in determine the size of the proposed development. This relates to *'how the development will look with(in) the current environment'* in the MI

1 mark was for the response about animation which provides a *'visualisation of (people using) the local area'* contained in the MI.

Question 1 c

The candidate was awarded **2 marks**.

1 mark for mentioning **existing buildings**...*architect can design around* and **1 mark** for the response *'the contour lines shows the hills and how steep the landscape may be* so that the architect can design accordingly. .

Question 1di

The candidate was awarded **2 marks**.

1 mark for referring to the choice of the roofing '*materials*' shown in Graphic 4 and relating this to how materials are applied and **1 mark** for reference to '*measurements*' in Graphic 4.

NB: As '*reference to the graphic or graphics*' is in the stem of the question a relevant graphic or graphics must be referred to by the candidate in their answer.

Question 1dii

The candidate was awarded **2 marks**.

1 mark for '*fully rendered version of (the house) when it is finished*' shown in Graphic 5 which relates to how exterior render will look and **1 mark** for '*layout of the house...important for potential buyers*' shown in Graphic1 which relates to how the 3D floorplan gives an idea of upper level layout.

Question 1e

The candidate was awarded **2 marks**.

1 mark for '*internet based graphics...easier to... share*' which relates to information...shared/sent to other potential buyers and **1 mark** was generously given (see note) to the variety of ways of presenting information to the consumer i.e. using '*animation*' which relates to '*allows 2D and 3D animations to be shown*' in the Marking Instructions.

Question 1f

The candidate was awarded **0 marks** because their response refers to generic advantages of animation and not to advantages of motion tweening.

Question 1g

The candidate was awarded **1 mark** for adjustment in '*attenuation*' which could lead to an increase in light levels. This relates to adjustment of the brightness of the lights inside the building.

Question 1hi

The candidate was awarded **1 mark** for '*Texture mapping*' and for correctly explaining how it is used.

Question 1hii

The candidate was awarded **1 mark** for '*directional light*' and explaining how this creates a '*shadow*' and adds realism to the image.

NB: Although the candidate has commented on the environment ('*picture background*') no further marks could be awarded as they used very basic terminology which is not appropriate at Advanced Higher level.

Question 2a

The candidate was awarded **0 marks** because there is no specific reference to key points stated in the MI.

Question 2bi

The candidate was awarded **1 mark** for '*change the design... before manufacture*' and relating this to functionality.

Question 2bii

The candidate was awarded **1 mark** for identifying that a 3D printed model helps in identifying or testing for '*faults before manufacture*'. This is particularly true for the testing of assembly methods and checking the operation of functional parts such as mechanisms.

Question 2c

The candidate was awarded **2 marks**.

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

Question 2d

The candidate was awarded **2 marks**.

1 mark for '*show the new model of caravan has less drag*' and **1 mark** for '*the target market can compare the two (models) and choose the best*'.

Question 2e

The candidate was awarded **2 marks**.

1 mark for *'materials used to make the exterior'* as different materials can be identified in a rendered view and **1 mark** for *'layout of the interior'* as the rendered view would help make this as clear as possible to a non-technical audience.

Question 2f

The candidate was awarded **1 mark** for *'offers...virtual tours which other graphic media may not offer'*.

Question 2g

The candidate was awarded **1 mark** for *'give a more realistic look'*. The response about *'virtual tools'* gains no marks because it is a repeat of the response to Question 2f.

Question 3a

The candidate was awarded **2 marks**.

1 mark for *'vector images are much smaller in size compared to raster'* and **1 mark** for *'can zoom in on arcs, lines... and not lose image quality'*. The next two answers are incorrect. Point 3 does not specify what *'CYMK model'* is converted into. Point 4 *'vector image can be saved and modified without loss of quality'* is true but so can some raster images, for example PNG. files.

Question 3b

The candidate was awarded **1 mark** for *'convert RGB to CYMK'*. No additional marks were awarded because the candidate's explanation is not clear.

NB: In this instance the candidate should have linked the statements about matching RGB and CYMK colours to digital and printed media.

Question 3c

The candidate was awarded **2 marks**.

1 mark for *'paper with a higher opacity to ensure no show through effects'* and **1 mark** for *'paper with a gloss finish like calendared paper'*

Question 3d

The candidate was awarded **0 marks** because the response is directly linked to the printing process.

Question 4a

The candidate was awarded **1 mark** for '*easily... recognised*'. The second part of the answer is too vague.

Question 4b

The candidate was awarded **2 marks**.

1 mark for '*to ensure that no one else can use the brand*' and **1 mark** for '*to ensure that legally no one can use anything that belongs to the brand*'.

Question 4c

The candidate was awarded **3 marks**.

Target Market

for considering the target market, specifically the statement; '*attract those who care about ...the environment*' (**1 mark**)

NB: No additional marks were awarded as the health message, which is in relation to Graphic 1 has not been referenced.

Colour

The candidate identifies the red and blacks used in Graphic 2 create unity between the product and the advert. (**1 mark**)

Social responsibilities

The candidate has highlighted that Graphic 3 shows '*the company...encourage customers to look after the environment*' (**1 mark**)

NB: As '*reference to the graphic(s)*' is in the stem of the question the relevant graphic must be specified by the candidate in the answer.

Question 5(a)

The candidate was awarded **2 marks**.

0 marks were awarded for the cylindrical element.

NB: The 30 diameter circle was extruded 198mm and not 200mm so no mark could be awarded for dimensions. As dimensions and modelling techniques were grouped together in the marking scheme with a 1 mark allocation, no marks could be awarded. The thread M10 was not mentioned and so no marks could be awarded for this.

1 mark was awarded for '*work plane 2mm from the bottom*'.

0 marks were awarded for the sketch path and modelling technique because the path extends inside the diameter of the circle.

0 marks were awarded for the Ø20 hole because its position was not specified.

1 mark was awarded for the fillet R20.

Question 5b

The candidate was awarded **1 mark** because they included the Ø15 profile, the sketch of the path (see note below) and the correct modelling term 'sweep'. No further marks could be awarded as **all** dimensions and terminology must be correct if the candidate uses the extrude command.

NB: The horizontal distance between centres is not included in the plan or elevation and therefore is not needed in the solution. Any measurement estimated by the candidate can be considered as correct.

Question 5c

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

Question 5d

The candidate was awarded **0 marks** because they did not provide a response to this question.