Candidate 2

The candidate was awarded a total of **48 marks**.

Question 1(a)

The candidate was awarded **4 marks** because they describe; sans serif as a modern type face (1 mark), the camera graphic as a link to the golden age of film (1 mark), the contrast of gold and black (1 mark), and the gold colour association with luxury (1 mark).

Question 1(b)

The candidate was awarded **3 marks** for correct explanations of the importance of Pantone, duplexing and paperweight with respect to printing the invitation.

Question 2(a)

The candidate was awarded **5 marks** for the following:

- helix including 4 revolutions (1 mark)
- total height of 80 and pitch of 20 (1 mark)
- taper 12 degrees (1 mark). Although an incorrect term has been used for the pitch, the mark can be given as this size has been labelled correctly in the sketch.
- using extrude along a path (sweep) (1 mark)
- and including 4 out of 6 dimensions of the path (1 mark)

Further marks could have been awarded if; the distance to the axis had been dimensioned when creating the helix, the candidate had used project geometry or redrawing the circle profile for use with extrude along a path and when applying shell, the candidate had included ‘removing top and bottom faces’ and included the correct wall thickness of 0.5 mm.

Question 2(b)

The candidate was awarded **1 mark** because the description includes manipulation of an appropriate lines in the mesh. Although the candidate has manipulated the edges that make up the complete diameter, the images in the question make it clear that lines of symmetry must be used in the manipulation process. Further marks could have been awarded if the candidate had mentioned setting up an appropriate mesh and converted the freeform back into a solid model.

Question 3(a)

The candidate was awarded **1 mark** because they describe the image showing ‘all surface designs…in one view’.

Questions 3(b)

The candidate was awarded **2 marks** because they explain that dpi relates to printed media, and ppi relates to digital media. The candidate also shows an understanding of the relationship between both terms and image resolution.

Question 3(c)

The candidate was awarded **4 marks** because they reference the artwork guidelines and explained; the importance of high-resolution images (1 mark), that pdfs have vector characteristics and can be scaled without loss of resolution (1 mark), that pdfs have a relatively low file size (1 mark), and that colour conversion and colour charts are necessary for print uniformity (1 mark).

Further marks could have been awarded if the candidate had explained the use of specific file types in detail rather than making general statements. The candidate also repeats, rather than explains, the importance of the artwork guidelines.

Question 3(d)

The candidate was awarded **1 mark** because they explain that the ink will not be compatible with the fabric. The response related to cost has not been explained and therefore, does not gain a mark.

Question 3(e)

The candidate was awarded **0 marks** because their answers are the wrong way round; the MPEG answer should be the 3GP answer and vice versa.

Question 4(a)

The candidate was awarded **6 marks** because they correctly identify and describe texture mapping (2 marks), bump mapping (2 marks) and specularity (2 marks).

Question 4(b)

The candidate was awarded **0 marks** because they have confused HDRI with IBL.

Question 4(c)

The candidate was awarded **5 marks** because they identify and describe the lighting types. Point light, in this example, is acceptable as an alternative to spotlight. No marks were awarded for the description of area light as it is incorrect. Area light would come from, for example, the computer screen and not from the overhead lights.

Question 5(a)

The candidate was awarded **2 marks** because they describe identifying ‘weak points’ and how the bridge responds to different ‘applied forces’.

Question 5(b)

The candidate was awarded **2 marks** because they explain that a topographical survey shows ‘points of similar altitude’ and how that will affect the ends of the bridge (1 mark). They also explain how the supports required under bridge and length of support beams will impact material requirements (1 mark).

Question 5(c)

The candidate was awarded **1 mark** because they describe motion tweening as creating a ‘smooth’ animation (1 mark). Further marks could have been awarded if the candidate had explained what they meant by a ‘simple process’ and they had used the term ‘speed of motion’ rather than ‘transitions’.

Question 6(a)

The candidate was awarded **0 marks** because they answer ‘how’ the display has been designed to be easy to navigate, rather than ‘why’.

Question 6(b)

The candidate was awarded **2 marks** because they describe, a focal point created by the ‘lines of the pizza’ slices that ‘converge in the centre’ and use ‘negative space’ to create the effect of a pizza topping within the logo.

Question 6(c)(i)

The candidate was awarded **0 marks** because their description is confused. It is the radial balance that leads the eye to the options and ‘pace’ is not relevant in this response.

Question 6(c)(ii)

The candidate was awarded **2 marks** because of the description of the background image of a ‘pizza making worktop’ adding realism, and for the texture of the pizza toppings also making it easier for the customer to ‘make their decision’ both being valid.

Question 6(d)

The candidate was awarded **1 mark** because their description of motion tweening animation is valid.

Question 7(a)

The candidate was awarded **1 mark** because they describe the incorrect use of the third angle projection symbol. The other errors identified are not valid as there is a note to say some centrelines have been removed, ‘scale as shown’ would not work as scale 1:10 does not feature elsewhere on the drawing, and the minor axis does appear on the stepped section view.

Question 7(b)(i)

The candidate was awarded **1 mark** because they include the dimensions of both arcs, but they have not said that they have aligned to the horizontal axis or mentioned tangent.

Question 7(b)(ii)

The candidate was awarded **1 mark** because they identify the irregular fillet, but the positions of the different radii have not been specified.

Question 7(c)(i)

The candidate was awarded **1 mark** because they explain that CFD will simulate how well the prototype kayak cuts through the water.

Question 7(c)(ii)

The candidate was awarded **2 marks** because they explain that the kayakers and the kayak's movements can be detected with motion capture, and how this result could influence the kayak's design.