

# Commentary on candidate evidence

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

It should be noted that the 2022 Advanced Higher Design and Manufacture question paper had a maximum of 65 marks available due to modifications introduced during the pandemic. This modification to the question paper consisted of optionality being introduced to Section 1 of the question paper, giving candidates the option of completing either question 1 or question 2.

## Candidate 1

### Section 1

The candidate chose to respond to question 2 (product evolution).

#### Question 2(a)

The candidate was awarded **6 marks** as there is detailed consideration of how the function and safety changed during the product's evolution.

#### Question 2(b)

The candidate was awarded **4 marks** as their response demonstrated limited knowledge and understanding of the subject matter, and made no valid points were made.

#### Question 2(c)

The candidate was awarded **0 marks** because they made no valid points about possible future developments in the product.

### Section 2

#### Question 3(a)

The candidate was awarded **4 marks** because they outlined four of the issues that may have influenced the selection of manufacturing and assembly processes for parts of the 'Snoweel': resistant to corrosion (snow and water), comfort for seat, flexibility of seat, strong for conditions.

#### Question 3(b)

The candidate was awarded **4 marks** because they made four valid points about the issues that may have influenced the selection of manufacturing and assembly processes for parts of the 'Snoweel': repeatable, accuracy, form of product, materials used.

#### Question 3(c)

The candidate was awarded **2 marks** because they made two valid points about the possible benefits of using composite materials for the wheels: advantages of each material, specialised.

### **Question 3(d)**

The candidate was awarded **6 marks** because there is a clear description of the use of modelling to develop the Snoweel which demonstrates a clear knowledge and understanding of the subject matter. There are clear examples of the use of modelling.

### **Question 4(a)**

The candidate was awarded **2 marks** because they named a suitable method of protecting the IPR of the radiator and one key feature: protects the invention and technology used.

### **Question 4(b)**

The candidate was awarded **0 mark** because their response does not include any valid features that designers need to consider to ensure components can be successfully die-cast.

### **Question 5(a)i**

The candidate was awarded **0 marks** because they gave a brief description of methods which could be used to achieve a balance between function and aesthetics.

### **Question 5(a)ii**

The candidate was awarded **1 mark** because they gave a brief description of methods which could be used to achieve a balance between function and aesthetics.

### **Question 5(b)**

The candidate was awarded **3 marks** because they demonstrated a general understanding of inclusive design and made generic reference to everyday products.

### **Question 6(a)**

The candidate was awarded **3 marks** because they made three valid points of how physiology and psychology may have influenced the design of the Pod: weight of pod, ease of use, colour.

### **Question 6(b)**

The candidate was awarded **4 marks** because they outlined two pieces of information that may have been obtained about design issues and explained how they could be used: physics of floating and anthropometrics.

### **Question 7(a)**

The candidate was awarded **2 marks** because they described how design opportunities may be created by analysing market.

### **Question 7(b)**

The candidate was awarded **0 marks** because their response did not describe how a company can reduce the negative impact of a product recall.

**Question 7(c)**

The candidate was awarded **3 marks** because they describe two steps a company can take to successfully launch a product: celebrity endorsements, promote to specific customers.

**Total: 44 marks**